

Annual Progress Report

**New Book: Fishes, Catches and Science of Alaskan Seas and Nearby
Ocean Waters**

Pollock Conservation Cooperative Research Center

Award Amount: \$20,000

By:

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New Book: Fishes, Catches and Science of Alaskan Seas and Nearby Ocean Waters

Abstract

Before his untimely death in September 2005, Albert Tyler was working on a book, titled "Fishes, Catches and Science of Alaskan Seas and Nearby Ocean Waters." A full draft underwent reviews by three reviewers that were completed in July and August 2005. The reviewers identified substantial areas needing major revision, including the need to update outdated fishery data and descriptions. The current Pollock Conservation Cooperative Research Consortium (PCCRC) grant provided limited additional funds (\$20,000) for subcontracts for graphics and technical editing. Funding was not provided to support the principal investigator's (PI) efforts. As the PI had an endowed chair with 12 months of funding, he offered to complete the book revision gratis. However, at the same time, starting in FY 2006, endowment funds for the PI were not renewed and the PI's position became funded only for 9 months annually for teaching. Thus, the PI needed to secure an additional 3 months of funding through grants and contracts such that the PI is fully contractually obligated to other tasks. It is estimated that this book revision would require 18 weeks of effort by the PI. Major revision of the book is estimated to cost \$111,042, including dedicated funds for the PI, a research assistant, technical editor, and graphic artist. Given existing funds of \$20,000 plus an additional \$7,000 unspent by Al Tyler, this would require approximately an additional \$84,000. Owing to the magnitude of these costs and the fact that the PI is obligated to other grants and contracts through FY 2011, it is with remorse that the PI recommends abandoning this project.

Background

Before his untimely death in September 2005, Albert Tyler was working on a book, titled "Fishes, Catches and Science of Alaskan Seas and Nearby Ocean Waters." Some chapters of the book underwent limited review by several colleagues in December 2003. A full draft of the book underwent review by three peer reviewers in summer 2005. One review was completed in July 2005 and two reviews were completed in August 2005. The reviewers identified substantial areas needing major revision, including the need to update outdated fishery data and descriptions. Al Tyler had just begun to address these comments, when he passed away on September 7, 2005.

Status

Reviewer's Comments

Major comments from three reviewers need to be addressed. In summary, reviewer #1 indicated that the scholarship is sound, but outdated. This reviewer stated that the book needs to be improved with up-to-date scientific methods and fishery management actions. As examples, it was noted that chapters 3 and 6 had fishery statistics that had not been updated since 1999 or 2002. Also, chapter 11 included a detailed description of a logistic model that the author admitted is rarely used, yet failed to mention cutting

edge statistical age-structured models that are commonly used today. This reviewer felt that the book may appeal to college instructors, but had limited appeal to the fishing industry or non-governmental organizations because more current information may be found readily on agency websites. Publication was not recommended until after major revision, including strong editorial guidance on grammar and themes, and after additional peer review.

Reviewer #2 commented that "recent issues" in book are outdated and need to be revised and replaced with new issues and updated. Some of the fishery descriptions were identified to be in need of updating, such as the herring fishery and pink salmon fishery (e.g., canning was mentioned as the primary product form). This reviewer also pointed out a number of scientific and technical errors needing correction.

In a more limited review, reviewer #3 indicated that the scholarship was generally sound, but coverage is uneven and insufficient in some areas. This reviewer suggested, for instance, that one chapter should be deleted because it is too complicated to be useful, a second chapter needs to include fishery statistics on numbers of vessels, landings by gear type, and number of participants, while a third chapter should be relegated to an Appendix.

PI's Assessment

The book is 322 pages long and covers a very wide gamut of fishery science, including species, fishing gears, descriptions of fisheries of Alaska (e.g., landings and status), and fishery management issues. The book includes 170 figures (Table 1). Among these are 30 figures with fishery data ending in 1999 or 2002 that need to be updated to be useful, 12 figures lacking citations that must be relocated or the figures replaced, and 6 figures for which permission was denied that need to be either redrawn or deleted.

Table 1. Summary of figures.

<u>Type of figure/photo</u>	<u>Number</u>
Photos by Author	8
Figures (most likely) redrawn or done by author	25
Photos containing citation by other people	10
Figures with fishery data that needs update	30
Figures taken from sources with no citation	12
Figures from other sources with citation	79
Figures from book where permission was denied	6
<u>Table with no citation</u>	<u>1</u>
Total number of figures	170

The book requires major revision to update descriptions of fisheries and scientific methods. Some chapters need to be largely rewritten. A general evaluation of each chapter follows:

- *Chapter 1: Philosophy of fishery science* – Descriptions of contemporary issues (e.g., full utilization, cod gear apportionments, etc.) are old issues
- *Chapter 2: Species and gear* – Product forms (e.g., canned pink salmon) listed for several species are outdated and include some species (anchovy, Pacific saury, and pomfret) which are rare in Alaskan waters.
- *Chapter 3: Catches and landed values* – Fishery statistics are outdated and need to be updated since 2002. Descriptions of fishery trends need to be updated, such as reductions in salmon prices and salmon resource issues in western Alaska, collapse of herring fisheries (e.g., Prince William Sound) is not described, rebuilding plan for Pacific ocean perch is not mentioned, crab fishery descriptions are outdated and do not mention the crab rationalization program.
- *Chapter 4: Pacific halibut* – Landings data are outdated, ending in 1997. The description of sport fishing is outdated and needs to be revised to reflect recent regulatory actions and status.
- *Chapter 5: Patterns in ocean habitats* – Permission was denied to use 6 figures in this chapter. Moreover, the chapter is confusing and should be either rewritten or deleted with some material moved into other chapters as and where appropriate.
- *Chapter 6: Fishery trends and climate change* – The 16 figures with stock assessment data ending in 1999 need to be updated and the text modified accordingly.
- *Chapter 7: Natural production domains* – Almost all citations come from the 1980s. The chapter needs significant updating/rewrite.
- *Chapter 8: Ecology and feeding* – The chapter is in good shape; minor updating and corrections are necessary.
- *Chapter 9: Sustainability* – The older treatment of stock and recruitment is limited to salmon and needs to be expanded to other fishes and crabs.
- *Chapter 10: Causes of variability in year-class success* – The chapter is generally sound, but needs contemporary science as most citations are from the 1970s and 1980s and quite a few even earlier.
- *Chapter 11: Dynamics of fish stocks and their economics* – The simplistic approach to this chapter is dated. Old theoretical approaches need to be replaced with contemporary statistical age-structured (groundfish) and length-based (crab) assessment methods that are central to the management of marine fishes of Alaska. There is one citation in 1999 and others are earlier than 1982. This chapter needs a major rewrite.

- *Chapter 12: Marketing* – This chapter, written by a guest author, appears to be in good shape; minor revision needed.
- *Chapter 13 Seafood science and technology* – This chapter, written by a guest author, also appears to be in good shape; minor revision needed and some figures need citations.
- *Chapter 14 Alaska salmon ranching* – This chapter written by a guest author needs some revision. Some fishery data are very old (1943-1973) and others need updating since 2002.
- *Chapter 15: Shellfish aquaculture* – The PI's discussion with the guest author of this chapter confirms that the chapter requires a major revision to update it with the contemporary status of mariculture in Alaska. There are quite a few older (1970s) citations. It is also the longest chapter in the book and could be shortened considerably.
- *Chapter 16: At-sea surveys* – The chapter is in rather good shape and requires minor updating, additions and revisions.
- *Chapter 17: Ecosystem issues* – This chapter could use substantial revision, updating and additions. For instance, the description of the sea lion issue fails to distinguish eastern and western stocks and does not mention research, reviews and findings since 2002. A number of important issues are not mentioned including ecosystem-based management, area closures in Alaska (e.g., Aleutian Islands, northern Bering Sea), gear modifications to reduce habitat and bycatch, the Aleutian Islands Fishery Ecosystem Plan, and other key “ecosystem-friendly” management measures and other actions (e.g., Marine Stewardship Council certification) since the early 2000s. The use and role of ecosystem models should be included in the chapter.
- *Chapter 18: Synthesis* – The overall approach is good, but it needs to be expanded and a good addition would provide some insights about the future.

Beyond the scientific issues, the book requires substantial editing for organization (placement of figures), technical aspects (font, format), and grammar.

Required Tasks for Publication

The following 18 tasks are deemed necessary for completion prior to publication:

Planning

1. Detailed reading of latest version of book, determine the overall status, new layout, and specific individual tasks and timelines.

Figures / Photos

2. Obtain the most recent data from fisheries that have been used in figures. Methods of obtaining the data include retrieval from online Internet-based

sources and formal data requests from other sources.

3. Replace or redo the figures to reflect the most recent fisheries data
4. Document the origin of figures that have no citation by determining if they have been subcontracted by the author or locate the published source from which they were obtained.
5. Have figures redrawn that have an unknown origin or where the citation cannot be located.
6. Obtain permission for citation of figures and photos for which permission has not yet been granted.
7. Have figures redrawn where authorization for re-use has been denied by book publisher.
8. Oversee the effort to obtain the authorization for citation of figures and effort to update or replace figures.
9. Modify text to reflect changes in the figures

Rewrite

10. Comply with the reviewers request to update the book with modern science. Include more citations that are from the 1990s and 2000s. Reflect modern methods and current fishery conditions.
11. Correct scientific and technical errors that have been brought to light by the reviewers and which have been identified by the PI.
12. Coordinate final revisions with authors that were responsible for some of the chapters. Request that authors use proper citation for figures they used and get authorization for their citations.

Finalize

13. Edit the book to meet scientific publishing requirements. This includes editing citations and use of proper English grammar.
14. Solicit independent reviews of chapters that have undergone major revisions.
15. Revise the chapters that have been sent out for independent review to meet the reviewers' comments.
16. Edit the book for a popular science book by a general, non-technical audience.
17. Coordinate the revisions with the technical editor and review and confirm the revisions indicated by the technical editor.
18. Interact with the publisher (University of Alaska Press) for final revisions to bring book to print

Estimates of the time and costs associated with these tasks are shown in Table 2. The two most time consuming tasks are rewriting of major sections of the book (160 hrs) and scientific editing (120 hrs). A graduate research assistant would be utilized to assist with updating of figures. Services of a technical scientific editor and graphic artist are also budgeted. In total, it is estimated that book revision would require 18 weeks of effort by the PI. Completion of the book is estimated to cost \$111,042, which includes funds for the PI, a research assistant, technical editor, and graphic artist. Given existing funds of

\$20,000 plus an additional \$7,000 unspent by Al Tyler, the additional marginal cost would be approximately \$84,000.

History of Current PCCRC Grant

The current PCCRC budget (\$20,000) was prepared by Vera Alexander. To date, no funds have been expended. It provided funds toward subcontracts for graphics and technical editing. Funding was not provided to support the principal investigator's (PI) efforts. As the PI had an endowed chair with 12 months of funding, he offered to complete the book revision gratis admittedly without knowledge of the effort necessary to complete it. In addition, around the same time (beginning in FY 2006), endowment funds for the PI were not renewed and the PI's position became funded for 9 months annually only for teaching, typical of most fisheries faculty positions. Thus, the PI needed to secure an additional 3 months of funding through grants and contracts to provide for 12 months of funding each year. Therefore, the PI has been fully contractually obligated to other tasks, including teaching, research, and a heavy service role in international, national and regional scientific and resource management organizations. Because of the significant amount of work required by the PI, occasional spare time on evenings and weekends is insufficient to accomplish a high-quality book revision.

Future Plans and Overall Recommendation

It is with much remorse that the PI recommends abandoning this book project. In its current status, it is the PI's assessment that Al Tyler's book requires a major amount of remaining work in order to update fisheries statistics, fishery descriptions, "current" fishery issues, scientific methods, literature citations, as well as substantial scientific and technical editing. The recommendation to abandon the book is based on the magnitude of estimated costs, as well as the fact that the PI is fully obligated to teaching and other grants and contracts through FY 2011. Thus, even if the remaining work were to be funded, the project could not be conducted until FY 2012 – FY 2013. Another option may be to relegate this project to another currently available scientist with broad expertise in fishery science and management in Alaska. Unfortunately, after much thought, the PI is unable to identify such an individual.

Table 2. Task breakdown by time and cost needed to complete and publish book.

Task No.	Task Name	PI (GHK) (hrs)	PI (GHK) (\$)	Tech / Grad (hrs)	Tech / Grad (\$)	Editor (\$)	Graphic Artist (\$)
Planning							
1	Review and planning	40	\$4,256				
Figures / Photos							
2	Get recent data from fisheries for figures			120	\$2,689		
3	Replace/redo figures with recent data			60	\$1,344		
4	Research figures without citations	40	\$4,256				
5	Redo figures without citations or sources						\$3,000
6	Obtain permissions for citation			40	\$896		
7	Replace unauthorized figures						\$1,500
8	Oversee updates of figures	80	\$8,513				
9	Modify text to reflect changed figures	24	\$2,554				
Rewrite							
10	Update methods, citations and fisheries management actions	160	\$17,025				
11	Correct scientific and technical errors	80	\$8,513				
12	Coordinate final revisions with other authors	40	\$4,256				
Finalize							
13	Scientific editing	120	\$12,769				
14	Solicit independent reviews of chapters with major revisions	16	\$1,703				
15	Revise chapters after review	40	\$4,256				
16	Technical editor					\$25,000	
17	Coordinate with technical editor	40	\$4,256				
18	Interact with book editor	40	\$4,256				
Project Completion		720	\$76,613	220	\$4,929	\$25,000	\$4,500
Total Cost			\$111,042				