# Pacific States Electronic-Journal of Scientific Visual (PSESV)

# STYLE GUIDE

January 2018

# ALASKA FISHERIES SCIENCE CENTER STYLEGUIDE

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# **Description of Publications**

The Pacific States Electronic-Journal of Scientific Visualization (PSESV) publishes peer-reviewed interactive shiny web applications of research based primarily on data and sources available through Pacific States Marine Fisheries Commission and affiliated organizations. This journal provides a formally citable outlet for researchers to publish and share research results as interactive web applications. Currently, PSESV servers are only set up host R shiny applications (the journal has no current plans to utilize other applications for producing interactive web applications but could adapt in the future based on demand).

# **Web-Ready Applications**

PSESV web submissions should be web-ready applications. Applications should be free of errant code, and formatting should be complete. All figures and tables need to be properly formatted as they will be viewed.

# **Style Guide Sources**

Our style guide is modified from the <u>Alaska Fisheries Science Center Style</u> <u>Guide</u> which utilizes the *GPO Style Manual* and the *CSE Manual of Scientific Style and Format*. We have adapted this material to our PSESV's specific requirements. Spelling should conform to Merriam–Webster's Collegiate dictionary (most recent edition).

#### **Publication Content**

A submitted shiny e-publication should include the following content: (1) source code, (2) data, and (3) supporting text information. The supporting text information should include at a minimum the following section: (i) a description of the applications, (ii) a description of the data, (iii) methods, (iv) acknowledgments, and (v) citations. The supporting text information may also include other sections common in publications such as an introduction, results, discussion. The application should be designed to be viewed in all common browsers including Chrome, Firefox, and Internet Explorer. There may also be appendices. We recognize that some shiny applications may not lend themselves to this structure, and will work with authors to find the best presentation for their work.

# Shiny e-publication source code format

Source code for each application of the e-publication should contain the following files:

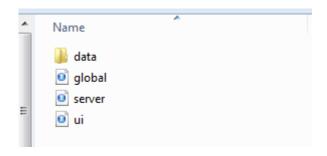
Global.R

Ui.R

Server.R

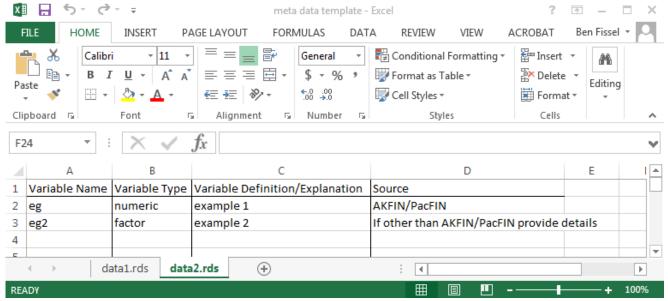
Although global-ui-server file structure is not the only file structure that can be used to produce shiny applications it is the preferred file structure by this journal because it compartmentalizes the elements of the shiny application in a way that facilitates review of the publication. See Figure 1 for an example of the files in the folder.

Figure 1. – File structure of shiny e-publication application.



# Shiny e-publication data

Data should be saved in the `.rds' format (using the saveRDS() function in R) and should be located in a folder titled `data'. Authors should provide information on the datasets in the `.rds' files in an excel file (or similar spreadsheet). In the excel file information for each `.rds' file should be provided on a separate tab of the excel document. Each row of a tab should describe the a variable. The information on the variable should include the (1) variable name (2) variable type (3) Variable definition (4) source. Authors may also include notes or other information in additional columns. If the source of the data is PSMFC then the authors may simply put the relevant PSMFC group (e.g., AKFIN or PacFIN), otherwise more detailed information and/or links to the data source should be provided. Figure 2 displays an example of the of the meta-data file format and a template can be found [link].



'meta data template.xl [link]. In the

Spell out abbreviations other than common units of measurement and cite sources within [location]. Figures and tables must be self-contained.

# **Headings**

Heading levels and format must be consistent throughout the document. There should be at least two subheads under each heading, or no subheads. We will accept any heading hierarchy that is consistent and clearly distinguishes the organizational levels, but below is our preferred system:

(2 line spaces)

#### **PRIMARY HEADING**

(3 line spaces)

(3 line spaces)

## **Secondary Heading**

(2 line spaces)

(2 line spaces)

# **Tertiary Heading**

(2 line spaces)

(2 line spaces)

**Quaternary heading**— (paragraph beginshere)

# **Page formatting**

Avoid widow and orphan lines -- do not end a page with a single line of a new paragraph or carry the last line of a paragraph to the beginning of a new page. When starting a new section of the paper near the bottom of a page, be sure to include at least two lines from the first paragraph below the heading; otherwise, start the new section on the next page. Avoid ending a page with a colon.

#### **Footnotes**

Limit the use of footnotes whenever possible. The primary use for footnotes in the *Technical Memorandum* or *Processed Report* series is to cite unpublished data (Unpubl. data) and personal communications (Pers. commun.). Be sure to always include the source's full name and affiliation, and the date of the communication or unpublished data. If the unpublished data is that of one of the authors of the document, only the name and date are required.

Footnotes are not permitted in the Abstract or in figure captions. Designate footnotes in the text with superscript numbers in sequence. Use superscript letters for footnotes in tables unless there is only one footnote, in which case use an asterisk (\*).

# **Manuscript Elements**

# Title Page

Title: Fourteen Point Font and Centered

by
Author's Name(s)

Author's Division or Laboratory
Alaska Fisheries Science Center
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
Street Address
Phone number

# Email

# List Affiliations and Addresses for all Co-authors

Month Year

# **Abstract, Executive Summary, or Preface**

Include a topic sentence stating the purpose of the research, a summary of results, and a conclusion.

#### **Contents**

List primary and secondary headings with page numbers. The initial letters of primary words are capitalized. Secondary headings are indented 0.5".

#### Introduction

Explain the rationale, background, and objectives of the research.

#### **Materials and Methods**

Describe methods in enough detail to allow replication. May refer to techniques described in the literature.

#### Results

Present results succinctly in text, or using tables or figures. Make sure that every table and figure is cited in order.

#### **Discussion**

Discuss the significance of the results and compare them with findings from the literature. End with a synthesis of conclusions.

# **Acknowledgments**

Recognize persons who contributed significantly to the manuscript and list any outside funding sources.

#### **Citations**

**In-text citations**—References should be cited in the text in the following forms: "as previously shown (Fissel 2014, Allen and Angliss 2014, Clapham et al. 2014, R Development Core Team 2006)", or "as shown in Castellote et al. (2014)". Distinguish papers by the same author(s) in the same year by lowercase letters after the year (Ver Hoef et al. 2013a, 2013b).

Web citations at the end of a sentence may be separated from the period by two spaces to prevent misinterpretation of the period as part of the Internet address:

http://www.afsc.noaa.gov/education/events/bering\_sea\_days.htm .

Personal communications, unpublished data, and data from news reports are not included in the Citations list. These sources should be cited in the text or in a footnote, as in the following examples.

... as shown by D. L. Correll (Assistant Director, Smithsonian Environmental Research Center, P.O. Box 28, Edgewater, MD 21037. Pers. commun., September 1982).

<sup>1</sup>J. P. Schmidt, unpubl. data. Auke Bay Laboratories, Alaska Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, 17108 Pt. Lena Loop Road, Juneau, AK 99801.

<sup>1</sup>Bill Atkinson's News Report, October 29, 1986. Issue 170, 10 p. Available 8000 Crest Dr. N.E., Seattle, WA 98115.

**Citations Section --** The Citations section includes peer-reviewed publications, technical and contract reports, and "Unpublished Manuscripts" that are available in print or electronic versions but are not published in the formal literature. The Citations section is double-spaced with a 0.5" hanging indent. For references starting with the same author, list single-author works first, in chronological order; list two-author works second, in alphabetical order of the second author, then chronologically; list multi-author works third, in chronological order only. Distinguish papers by the same author(s) in the same year by lowercase letters after the year.

Citations include the author, date, title, journal abbreviation, volume, issue only if each issue starts with page 1, and inclusive pages. A list of journal abbreviations used in AFSC publications may be found here. Additional journal abbreviations may be found at the following websites:

http://home.ncifcrf.gov/research/bja/journams\_m.html
http://www.efm.leeds.ac.uk/~mark/ISIabbr/M\_abrvjt.html
http://www.int-res.com/misc/journallist.txt

See examples below or consult a recent issue of the AFSC *Technical Memorandums* and *Processed Reports* for examples of citation list formatting.

## **AFSC Processed Report**

Orr, J. W., D. T. Drumm, E. A. Laman, D. E. Stevenson, and G. R. Hoff. 2014. Species identification confidence in the Gulf of Alaska and Aleutian Islands surveys (1980-2011). AFSC Processed Rep. 2014-01, 258 p. Alaska Fish. Sci. Cent., NOAA, Natl. Mar. Fish. Serv., 7600 Sand Point Way NE, Seattle WA 98115.

# **AFSC Quarterly Report Feature**

Kondzela, C., J. R. Guyon, and J. Murphy. 2014. Genetic research provides insight into the production and behavior of western Alaska chum salmon. AFSC Quarterly Report Feature (July-August-September 2014) 11 p.

#### Book

Gentry, R. L. 1998. Behavior and ecology of the northern fur seal. Princeton Univ. Press, Princeton, NJ. 392 p.

# Chapter or pages in a book

Murphy, M. L. 1998. Primary production, p. 144-168. *In* R. J. Naiman and R. E. Bilby (editors), River Ecology and Management: Lessons from the Pacific Coastal Ecoregion. Springer-Verlag, New York.

#### Contract report

Dawley, E. M. 1986. Effects of 1985-86 levels of dissolved gas on salmonids in the Columbia River. Report to the U.S. Army Corps of Engineers, contract DACW57-85-F-0623, 31 p. Available Northwest and Alaska Fish. Cent., 2725 Montlake Blvd. E., Seattle, WA 98112.

# Dissertation or thesis

Wursig, B. 1978. On the behavior and ecology of bottlenose and dusky dolphins. Ph.D . Thesis, State Univ. New York, Stony Brook, 326 p.

# Document submitted to an agency

Treacher, A. 1985. Status of fish and chips over seamounts in the eastern Bering Sea. Unpubl. manuscr., 63 p. (Document submitted to the annual meeting of the International North Pacific Fisheries Commission, Juneau, Alaska, November 1984.) Northwest and Alaska Fish. Cent., 7600 Sand Point Way N.E., Seattle, WA 98115.

#### Fishery Bulletin

Conrath, C. L., and M. E. Conners. 2014. Aspects of the reproductive biology of the North Pacific giant octopus (*Enteroctopus dofleini*) in the Gulf of Alaska. Fish. Bull., U.S. 112:253-260.

#### In press

Longjohn, B. In press. Effect of woolen outer garments on reproduction of Pacific cod. North Am. J. Fish. Manage.

#### <u>Journal article</u>

McConnaughey, R. A., and S. E. Syrjala. 2014. Short-term effects of bottom trawling and a storm event on soft-bottom benthos in the eastern Bering Sea. ICES J. Mar. Sci. 71:2469-2483.

#### Journal article online early

Conn, P. B., J. M. ver Hoef, B. T. McClintock, E. E. Moreland, J. M. London, M. F. Cameron, S. P. Dahle, and P. L. Boveng. Online Early (2014). Estimating multispecies abundance using automated detection systems: Ice-associated seals in the eastern Bering Sea. Methods Ecol. Evol.

#### NOAA Technical Memorandum-AFSC

Daly, B. J., C. E. Armistead, and R. J. Foy. 2014. The 2014 eastern Bering Sea continental shelf bottom trawl survey: Results for commercial crab species. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-282, 167 p.

#### NOAA Technical Memorandum-OPR

Silber, G.K., S. Bettridge, and D. Cottingham. 2009. Report of a workshop to identify and assess technologies to reduce ship strikes of large whales, 8-10 July, 2008, Providence, Rhode Island. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-OPR-42., 55 p.

#### NOAA Technical Memorandum-SPO

Stauffer, G. (compiler). 2004. NOAA protocols for groundfish bottom trawl surveys of the nation's fishery resources. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-65, 205 p.

# Proceedings of a meeting

Anderson, P. J., J. E. Blackburn, and B. A. Johnson. 1997. Declines of forage species in the Gulf of Alaska, 1972-1995, as an indicator of regime shift, p. 531-543. *In* Proceedings of the International Symposium on

the Role of Forage Fishes in Marine Ecosystems. Alaska Sea Grant College Program Report No. 98-01, University of Alaska Fairbanks.

# Stock Assessment Report

Heifetz, J., and D. Clausen. 1991. Slope Rockfish. *In* Stock assessment and fishery evaluation report for the 1992 Gulf of Alaska groundfish fishery.

North Pacific Fishery Management Council, P.O. Box 103136, Anchorage, AK.

#### <u>Translation</u>

Fadeev, N.S. 1965. Comparative outline of the biology of flatfishes. Translated from Russian by the Israel Program for Science Translations, 1968. *In* P.A. Moiseev (ed.), Soviet fisheries investigations in the northeast Pacific, Part 4. p. 112-129. [Available from U.S. Dep. Commer., Natl. Tech. Inf. Serv., Springfield, VA, as TT 67-51206.]

# <u>Unpublished manuscript</u>

Echeverria, T. 1983. Maturity and seasonality of the rockfishes of central California. Unpubl. manuscr., 60 p. Tiburon Lab., Southwest Fish. Cent., 3150 Paradise Drive, Tiburon, CA 94920

#### Website

- Thomas, L., J. L. Laake, and T. A. Marques. 2006. Distance 5.0. Release 2. Univ. St. Andrews, UK. <a href="http://www.ruwpa.st-and.ac.uk/distance/">http://www.ruwpa.st-and.ac.uk/distance/</a>.
- Shefferly, N. 1996. *Kogia sinus* (Dwarf sperm whale), [Online]. Available: URL: <a href="http://anialdiversity.umich.edu/accounts/kogia/k/\_sinus">http://anialdiversity.umich.edu/accounts/kogia/k/\_sinus</a>. Accessed Nov. 2014.

#### <u>Software</u>

R Development Core Team. 2006. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria.

**In-text tables**— In-text tables are brief, are unnumbered, and do not have captions or solid horizontal lines. Underline only column headings with spaces between headings as in the following example:

Population abundances of juvenile walleye pollock (i.e., <20 cm) from the survey were as follows:

<u>Year</u>	Year class sampled	Population estimates (billions)
1981	1980	1.0
1982	1981	0.9
1983	1982	3.6

# **Appendices**

An Appendix is appropriate for description of complex experimental protocols and presentation of large data bases and other supplemental information which would restrict clarity of expression elsewhere in the manuscript.

# **Style Conventions**

# **Acronyms and Abbreviations**

An acronym or abbreviation should be defined the first time it is used both in the abstract and in the main text of a manuscript. Do not use acronyms or abbreviations in the title or to begin a sentence. If a name is used only once or twice, there is no need to use an abbreviation or acronym, unless that is the term commonly used (e.g., PCBs for polychlorinated biphenyls). It may be helpful to use a short title instead of an abbreviation in some cases (e.g., "the Council" for NPFMC (North Pacific Fishery Management Council)). If numerous acronyms or abbreviations are used in a report, consider adding a glossary.

Plurals of abbreviations and acronyms have no apostrophe (e.g., PCBs). Do not use periods after abbreviations of measurement (lb, not lb.). Do not add an "s" for plurals (pounds = lb, not lbs). See the Word List for specific acronyms and abbreviations, including geographic designations.

#### Alaska vs. Alaskan

We follow University of Alaska style, as follows:

- "Alaskan" is a noun describing a person, not a place never "Alaskan city," for example: The professors are longtime Alaskans.
- When you're not using "Alaska" as a proper noun, use it as an adjective to describe things: We love to eat Alaska salmon and berries.

# **Capitalization of Arctic**

"The Arctic" is the region north of the Arctic Circle. However, the term "arctic" used as an adjective can refer either to the region or to very low temperatures.

- Capitalize the adjective referring to the geographic region:
   Arctic communities
- Do not capitalize the adjective referring to very cold temperatures:
   arctic winds
- Do not capitalize common names of animals or plants: arctic fox

# **Capitalization of Other Geographic Regions and Features**

Geographic areas and features are an important part of many scientific studies. Here are some guidelines for their usage. Also see Word List for specific words.

- Capitalize a generic term that is part of a name: Pacific Ocean, Bering
   Sea, Alaska Gyre, Alaska Peninsula
- Capitalize descriptive terms (e.g. "west") only if they form part of a recognized proper name: West Coast, Pacific Northwest, Southeast Alaska
- Do not capitalize generic terms on their own: the oceans, continental shelf, deep-sea trench
- Do not capitalize a generic term if it is plural and follows two or more proper names: Atlantic and Pacific oceans; Marmot and Ugamak islands.

#### **Date and Time**

In the main text, spell out units of time and names of days of the week and months. Abbreviations may be used in equations, tables, and figures as long as they are clearly defined. Use the 24-hour clock and indicate time zone when appropriate (e.g., 1300 Pacific Daylight Time--PDT). A handy convention uses a small "h" after the number to indicate the time and reserves the full word "hours" where the number preceding it means a time period. For example, "The mail will arrive at 1300h" and "the mail will arrive in 2 hours".

Dates should be formatted as "14 August 1986" in text, but may be shown as 8-14-86 in tables. Decades ("1980s") have no apostrophe.

# **Equations**

Equations should be numbered in sequence and designated by a numeral within parentheses set flush right. Put a space before and after mathematical symbols in equations, but no spaces before and after these symbols when they are used with superscripts or subscripts. Remember that equations are essentially sentences and should be punctuated as required with periods, commas, and semicolons.

$$(dO2/dt)b = -Dwd$$
 (1) When a numbered equation is referred to in the text, it should be written "Equation (1)".

## **Latitude and Longitude**

Both are spelled out when they appear alone in text but are abbreviated when given as part of a geographic coordinate: "lat. 20°N, long. 120°W". The degree and minute symbols for geographic coordinates are closed up to the number: "35°42′N". Coordinates may also be written as decimal degrees: long. "35.7".

#### Lists

When listing items in numbered sequence in paragraph form, use a right

parenthesis only with one space after the parenthesis. Use commas to separate items in a series, unless the series itself contains internal punctuation or would otherwise cause confusion, in which case semicolons are preferred: "Samples were taken from the following species: chum salmon, *Oncorhynchus keta*; Atlantic menhaden, *Brevoortia tyrannus*; and oilfish, *Ruvettus pretiosus*."

For longer lists in which each item is a complete sentence, we suggest the following form:

- Begin each statement with a capital and end it with a period.
- Do not use a comma or conjunction ("and") before the last entry.

#### **Numbers and Mathematics**

Spell out single-digit whole numbers, unless directly compared with double digit numbers. Spell out fractions, unless they are associated with units of measurement. Use numerals for numbers 10 or greater, except at the beginning of a sentence; for numbers followed by a standard unit of measurement; for page, volume, and issue numbers; and for numbers presented as a range. A zero always precedes the decimal point in text, tables, or figures. Numbers with four or more digits have a comma: "1,000," not "1000." We use the forms "1.6 million" and "300,000".

#### **Punctuation**

**Comma --** Use a serial comma: "red, white, and blue", not "red, white and blue".

**Quotation marks --** Place punctuation marks in relation to quotation marks according to sense; place the period outside when it punctuates the whole sentence: "She referred to it as "a historic crisis". Place the period inside when it punctuates only the quoted material: She said, "It

was a historic crisis." Always place a comma outside of quotes, since it punctuates the whole sentence.

**Dash --** Indicate em dashes with two hyphens with one space before and after: "These are shore deposits -- gravel, sand, and clay -- but marine sediments underlie them."

**Colon** – A colon is used to introduce a series when a complete independent clause precedes the colon. Do not insert a colon between a verb or preposition and its object. "Our objectives were to: 1) provide fishery-independent estimates..." is incorrect; instead, use one of the following correct forms: "Our objectives were to 1) provide fishery-independent estimates..." or "Our objectives were as follows: 1) provide fishery-independent estimates...

**Parentheses --** When parentheses are used within a sentence, the first word after the left parenthesis is lowercased (unless it is a proper noun) and the final punctuation for the sentence goes outside the right parenthesis (as in this example). However, if a complete sentence occurs inside parentheses, the first word after the left parenthesis is capitalized and final punctuation goes inside the right parenthesis. Use double parentheses rather than parentheses and brackets. We prefer reserving brackets only for mathematical formulas.

# Ranges

Numbers in a range may be connected with the words "to" or "through", or with an en dash. An en dash should be used only if there are no symbols, operators, or units between the two numbers: "5-12 July" but not "5 July -12 July". If the en dash is used, the range should not be preceded by the words between or from: use "between 2012 and

2014", not "between 1982-1984"; use "from 2012 to 2014" not "from 2012-2014".

A range of numbers can be expressed with a single unit symbol after the range, except when the symbol is closed up to the number: use "10 to 20 m", but "10% to 20%".

#### **Scientific and Common Names**

Our authority for the scientific and common names of fishes, mollusks, and decapod crustaceans are the American Fisheries Society's Special Publications No. 34 (2013), No. 16 (1988), and No. 17 (1989), respectively. We follow the Society of Marine Mammalogy's guidelines (Special Publication No. 4, 1998.) for scientific and common names of marine mammals. Exceptions occur when there have been significant revisions in nomenclature. The scientific name of the species studied must appear the first time it is mentioned in both the abstract and the main text of the paper. Either the common or scientific name may be used subsequently.

Sometimes the name of the original describer of the species appears with species names. Parentheses around the describer indicate that the species is no longer in the genus to which it was assigned by the original describer. The year may be included after the describer's name and is always separated by a comma. This is not a text citation, and does not need to be included in the Citations section of the paper.

We format scientific names as in the following examples. Note that we do not capitalize common names of fish.
walleye pollock (*Gadus chalcogrammus*)

Oncorhynchus sp.

Oncorhynchus spp. (plural)

Proneomysis wailesi Tattersall

Alienacanthomysis macropsis

(Tattersall) Lactophrys trigonus

(Linnaeus, 1758)

# **Units and Symbols**

Units of measurement should be spelled out if used without an associated value: "we measured the distance in nautical miles (nmi)". A symbol or abbreviation may be used with an associated numeral after it has been defined the first time mentioned: "the distance between stations was 5 nmi".

There is no space between the degree symbol and the "C" for Celsius: 16

 $^{\circ}$ C, or in 6%, 8 ‰, <4, >3. A space is needed before and after > and < when used as a verb (e.g., P < 0.05). Spell out "is greater than" and "is less than" in text and only use the symbols in parenthetical material. See Units and Symbols in the Word List for examples.

#### **Vessel Names**

Vessel names are given in full and are italicized. We use "RV", "MV", or "FV" (not italicized): RV *Thomas G. Thompson*. We use "NOAA ship(s)" before the name of NOAA vessels: NOAA ship *Miller Freeman*.

In alphabetical lists, vessels named after persons are alphabetized under the last name. Thus, *George M. Bowers* will be listed under "B". The name will not be inverted, however, as it would be with the name of an author (i.e., do not type "Bowers, George M.")

#### **Word List**

The following list shows the preferred capitalization, hyphenation, italicization, punctuation, and abbreviation of words that appear frequently in AFSC publications.

ADF&G Alaska Department of Fish and Game

Alaska proper noun, or adjective describing places or

things

Alaskan adjective describing people

Alaska Gyre

Alaska Natives

Alaska Peninsula

Arctic proper noun, or adjective referring to region

arctic adjective referring to cold temperatures, or in

common names of flora or fauna

Arctic community

Arctic Circle

Arctic Ocean

age group noun (avoid "age class")

ageing age determination of fishes Bering Sea

bitter crab syndrome

bottom fish noun

bottom trawl noun

bottom water noun

broodstock noun or adjective bycatch

Chinook salmon

codend noun or adjective

cold water noun

coldwater adjective

continental shelf

continental slope

database

data set

deep sea noun

deep-sea adjective

deep water noun

deepwater adjective

dipnet noun, verb, adjective driftnet

echo integration but echo integration-trawl echo sound but

echosounder

e.g., use only in parentheses

i.e., use only in parentheses et al.

etc.

El Niño ex-vessel

FV fishing vessel

FY financial year (e.g. FY15)

Federal part of a proper noun: "the Federal Reserve Board"

federal indicates type of agency: "several federal

agencies"

fish as noun, singular or plural referring to one species

fishes as noun refers to more than one species

freshwater noun or adjective

gender refers to the social differences between male and

female

gill net noun gillnet verb

gill-net adjective

gillnetting noun, verb or adjective gill-netter

GPS Global Positioning System

groundfish

Gulf of Alaska

haul-out adjective

haul out verb haulout noun hydroacoustics in situ

islands Pribilof and Aleutian Islands; an island joint

venture

longline MV motor vessel

main stem noun

mainstem adjective midwater adjective

multifrequency

multibeam adjectivemultispecies

NE northeast (direction)

nearshore adjective

net-pen always hyphenate

North Pacific Ocean

North Slope of Alaska

NPFMC North Pacific Fishery Management Council offshore

onshore

Pacific Ocean

Pacific Northwest specific U.S. region

P.P.R. Polish People's Republic

P.R.O.C. People's Republic of China

RV Research Vessel

radar acronym written as lower case words

radio tagged verb

radio-tagged adjective

R.O.C. Taiwan is the preferred term for Republic of China

R.O.K. South Korea or Republic of Korea

Russia After December 1991; U.S.S.R. before

SL abbreviation for Standard Length

salt water noun

saltwater adjective

scuba acronym written as lower case word seabird

seafloor

sea ice noun

sea-ice adjective

seawater noun and adjective setnet always one word

sex biological distinction between male and female

shallow water noun

shallow-water adjective

shelf break noun

shrimp as noun, singular or plural referring to one species

shrimps as noun, refers to multiple species southern

Tanner crab

Southeast Alaska southeast Bering Sea Southern Ocean

sport fish noun

sportfishing noun sport fisheries

subadult noun, adjective subarctic

subsample

underway adjective
under way adverb
United States noun

U.S. adjective or when combined with another country's

name, such as U.S.-Canada border

U.S.S.R. before December 1991, Russia after

versus (vs.) spell out in text; abbreviate only in parentheses

West Coast refers to the specific U.S. region

west coast describes location; west coast of NorthAmerica

year class noun

year-class adjectiveyear-round adjective

yolk sac noun

yolk-sac adjective

## Statistical terms and variables

 $\overline{x}$  Arithmetic mean

SD Standard deviation

SE Standard error

CV Coefficient of variation

df Number of degrees of freedom

 $r^2$ 

*t*-test

# **Units and symbols**

We prefer SI units but accept imperial units where they are used traditionally.

 $\leq$ 5 (but p < 0.05) 5 cm

6 days

12° (angle)

2°C

35°42′N (latitude)

(3 ft.) use abbreviation in parentheses 3 foot spell out in a sentence

6 fm fathoms

5 g

12 hours

(6 in.) use abbreviation in parentheses

6 inches spell out in a sentence 2 kg

5 km

10 knots spell out in text; may be abbreviated "kn" in tables only 1 L

(liter)

5 m

5 mi

5 minutes

6 months

5 nmi nautical miles 50%

2 seconds

5 t metric tons 4 years