

# Guide to writing a scientific paper



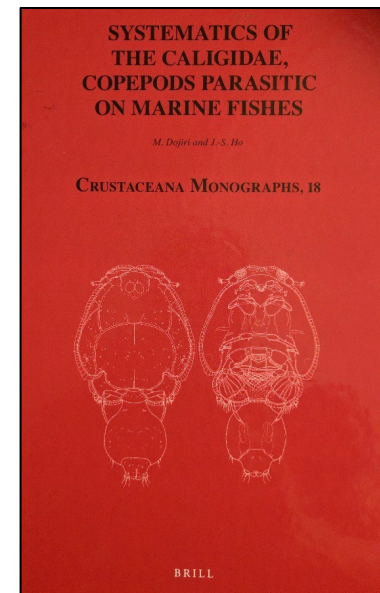
## Danny Tang

Environmental Services Department  
Ocean Monitoring Program  
Orange County Sanitation District



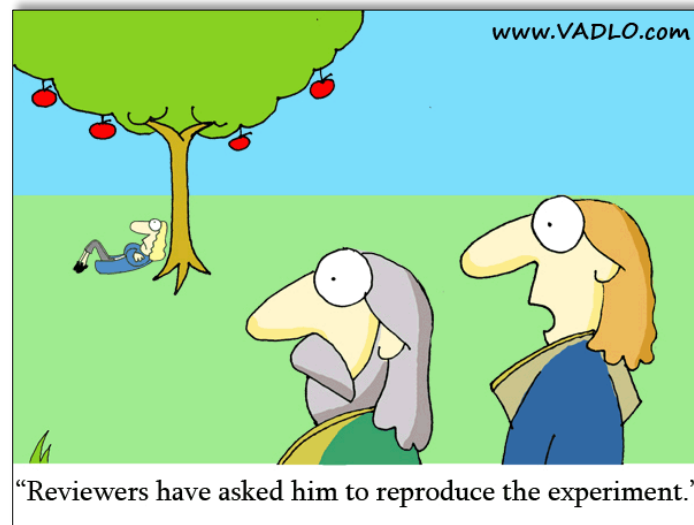
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- Guest Editor
  - *Zoosymposia* and *Bulletin of the SCAS*
- Journal referee
  - *Crustaceana Monographs*
  - *Journal of Natural History*
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# Purpose and Benefits of Publishing

- Disseminate results → advance science
- Contains info that others can use to ***replicate/verify*** the study



# Purpose and Benefits of Publishing

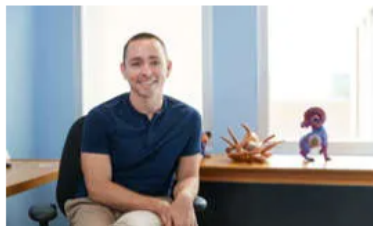


## McMaster University puts ecology professor on leave after investigation into a 'series of concerns'

Dan Taekema 1 day ago



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© Supplied by McMaster University Jonathan Pruitt, a McMaster University professor and Canada 150 Research Chair has been placed on paid leave following an investigation by the university.

McMaster University in Hamilton has placed a high-profile science professor on paid leave following an investigation into what it describes as a "most serious matter."

Jonathan Pruitt is an evolutionary ecologist who was awarded a coveted [Canada 150 Research](#)

[Chair](#) — a federal program designed to attract the world's top researchers to Canada.

McMaster has [described him](#) as an "internationally recognized" academic who studies the "collective traits of different animal societies" — including ants, wasps and spiders — and how those traits affect their survival.



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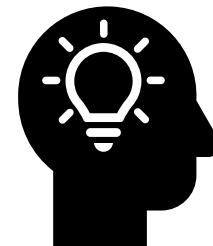
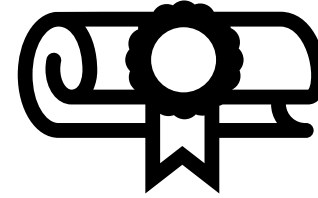


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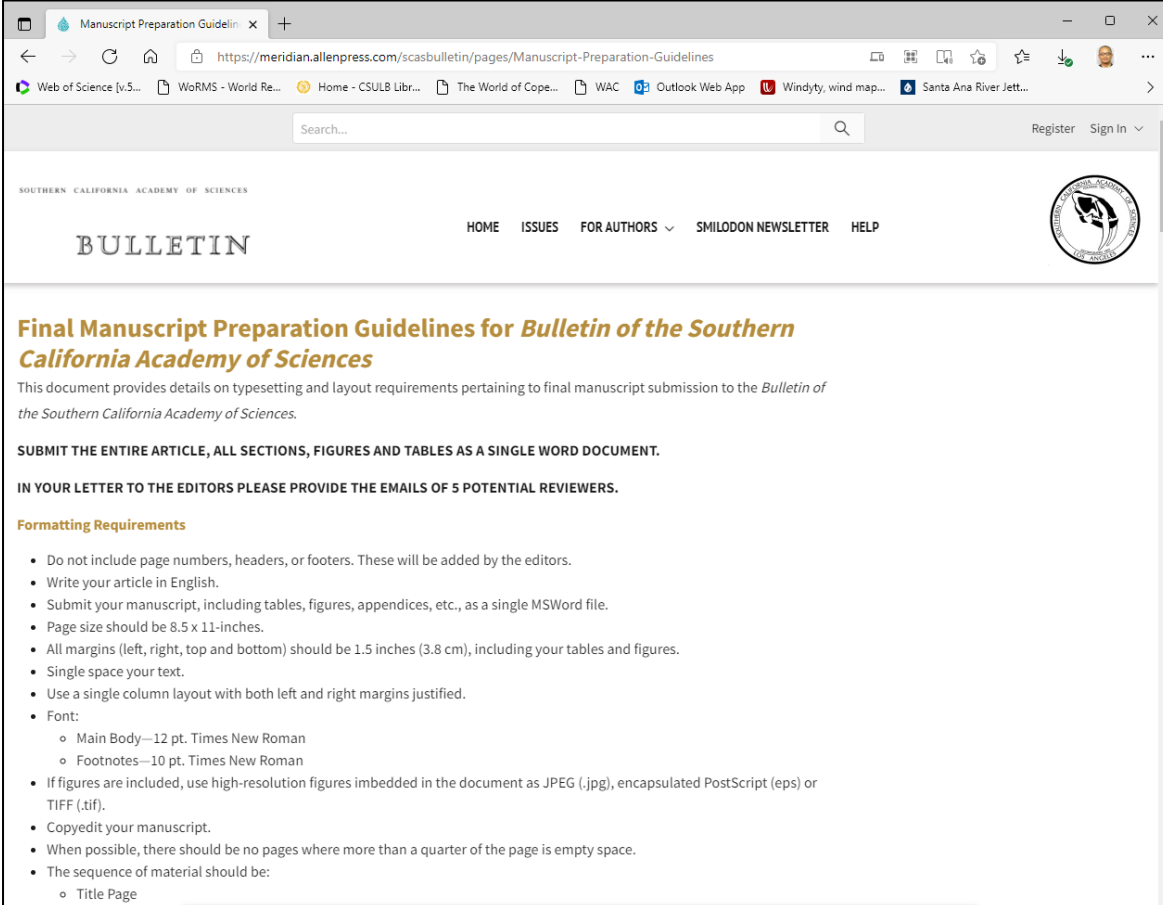
# Purpose and Benefits of Publishing

- Career advancement
- Professional recognition
- Opportunities for collaboration
- Impact on society
- Inspiration for future research



# Follow *Bulletin of the SCAS* guidelines

<https://meridian.allenpress.com/scasbulletin/pages/Manuscript-Preparation-Guidelines>



The screenshot shows a web browser window displaying the 'Final Manuscript Preparation Guidelines for Bulletin of the Southern California Academy of Sciences'. The page includes a search bar, navigation links (HOME, ISSUES, FOR AUTHORS, SMILODON NEWSLETTER, HELP), and a logo for the Southern California Academy of Sciences. The main content area features the title 'Final Manuscript Preparation Guidelines for Bulletin of the Southern California Academy of Sciences' and a paragraph stating: 'This document provides details on typesetting and layout requirements pertaining to final manuscript submission to the Bulletin of the Southern California Academy of Sciences.' Below this, there are two bolded instructions: 'SUBMIT THE ENTIRE ARTICLE, ALL SECTIONS, FIGURES AND TABLES AS A SINGLE WORD DOCUMENT.' and 'IN YOUR LETTER TO THE EDITORS PLEASE PROVIDE THE EMAILS OF 5 POTENTIAL REVIEWERS.' The 'Formatting Requirements' section lists several bullet points: 'Do not include page numbers, headers, or footers. These will be added by the editors.', 'Write your article in English.', 'Submit your manuscript, including tables, figures, appendices, etc., as a single MSWord file.', 'Page size should be 8.5 x 11-inches.', 'All margins (left, right, top and bottom) should be 1.5 inches (3.8 cm), including your tables and figures.', 'Single space your text.', 'Use a single column layout with both left and right margins justified.', 'Font: Main Body—12 pt. Times New Roman; Footnotes—10 pt. Times New Roman.', 'If figures are included, use high-resolution figures imbedded in the document as JPEG (.jpg), encapsulated PostScript (eps) or TIFF (.tif).', 'Copyedit your manuscript.', 'When possible, there should be no pages where more than a quarter of the page is empty space.', and 'The sequence of material should be: Title Page'.

Manuscript Preparation Guidelines

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BULLETIN

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**Final Manuscript Preparation Guidelines for *Bulletin of the Southern California Academy of Sciences***

This document provides details on typesetting and layout requirements pertaining to final manuscript submission to the *Bulletin of the Southern California Academy of Sciences*.

**SUBMIT THE ENTIRE ARTICLE, ALL SECTIONS, FIGURES AND TABLES AS A SINGLE WORD DOCUMENT.**

**IN YOUR LETTER TO THE EDITORS PLEASE PROVIDE THE EMAILS OF 5 POTENTIAL REVIEWERS.**

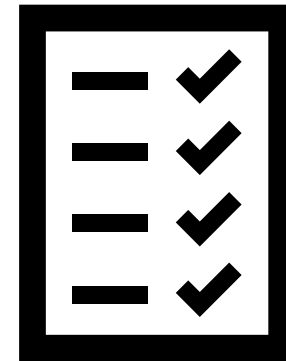
**Formatting Requirements**

- Do not include page numbers, headers, or footers. These will be added by the editors.
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- Submit your manuscript, including tables, figures, appendices, etc., as a single MSWord file.
- Page size should be 8.5 x 11-inches.
- All margins (left, right, top and bottom) should be 1.5 inches (3.8 cm), including your tables and figures.
- Single space your text.
- Use a single column layout with both left and right margins justified.
- Font:
  - Main Body—12 pt. Times New Roman
  - Footnotes—10 pt. Times New Roman
- If figures are included, use high-resolution figures imbedded in the document as JPEG (.jpg), encapsulated PostScript (eps) or TIFF (.tif).
- Copyedit your manuscript.
- When possible, there should be no pages where more than a quarter of the page is empty space.
- The sequence of material should be:
  - Title Page

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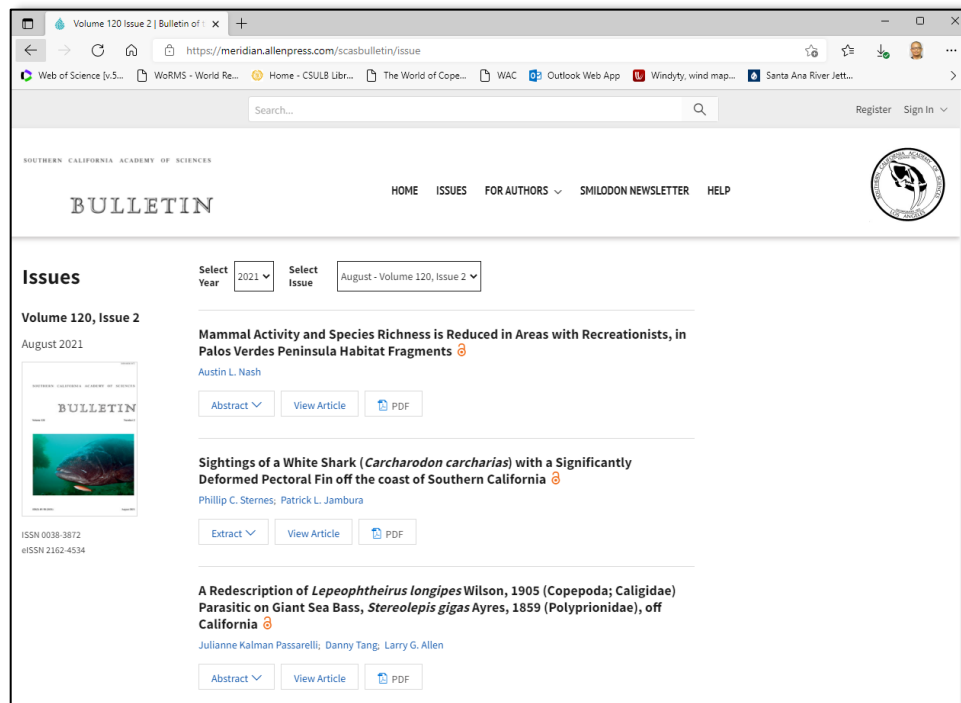
Contain info about:

- Language (US or UK English)
- Page limit
- Page size (Letter or A4)
- Margin size
- Font style/size
- Spacing and text alignment
- Sections (Introduction, Methods, etc.)
- Literature cited requirements
- Table format
- Figure requirements



# Follow *Bulletin of the SCAS* guidelines

Visit <https://meridian.allenpress.com/scasbulletin/issue> to download free articles



The screenshot shows the SCAS Bulletin website interface. At the top, there's a search bar and navigation links like 'HOME', 'ISSUES', 'FOR AUTHORS', 'SMILODON NEWSLETTER', and 'HELP'. The main content area is titled 'Issues' and shows 'Volume 120, Issue 2' for August 2021. Three articles are listed:

- Mammal Activity and Species Richness is Reduced in Areas with Recreationists, in Palos Verdes Peninsula Habitat Fragments** by Austin L. Nash. Options: Abstract, View Article, PDF.
- Sightings of a White Shark (*Carcharodon carcharias*) with a Significantly Deformed Pectoral Fin off the coast of Southern California** by Phillip C. Sternes, Patrick L. Jambura. Options: Extract, View Article, PDF.
- A Redescription of *Lepeophtheirus longipes* Wilson, 1905 (Copepoda; Caligidae) Parasitic on Giant Sea Bass, *Stereolepis gigas* Ayres, 1859 (Polyprionidae), off California** by Julianne Kalman Passarelli, Danny Tang, Larry G. Allen. Options: Abstract, View Article, PDF.

Bull. Southern California Acad. Sci.  
120(2), 2021, pp. 59-63  
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## Sightings of a White Shark (*Carcharodon carcharias*) with a Significantly Deformed Pectoral Fin off the coast of Southern California

Phillip C. Sternes<sup>1\*</sup> and Patrick L. Jambura<sup>2</sup>

<sup>1</sup>Department of Evolution, Ecology, and Organismal Biology, University of California, Riverside, CA 92521

<sup>2</sup>Department of Paleontology, University of Vienna, Austria

It is well known that sharks frequently suffer injuries throughout their life due to various natural causes (Pratt and Carrier 2001; Chin et al. 2015; Becerril-García et al. 2020), including human interactions (Lester et al. 2020). Although sharks show both remarkable resilience and wound-healing capabilities (Reif 1978; Womersley et al. 2021) to minor injuries such as lacerations, some injuries are so substantial that they remain present for the rest of the individual's life (Mumby 2019; Womersley et al. 2021). For example, in 2014 a grey reef shark, *Carcharhinus amblyrhynchos* (Bleeker, 1856), was observed to be missing its entire first dorsal fin at a reef near Palau (Mumby 2019). Remarkably, the same individual was seen again four years later near the original study site, indicating that it had survived with the permanent injury (Mumby 2019). It is known that the dorsal fin either aids in stability or in generating thrust depending on its size and position on the body (Lingham-Soliar 2005; Maia et al. 2017). However, it is unknown what functional consequences a shark may suffer when missing a dorsal fin (Harris 1936). Nevertheless, it was concluded that this grey shark most likely used a variety of feeding tactics to capture prey and survive to compensate the loss of its dorsal fin (Mumby 2019). Whereas grey reef sharks are moderately sized mesopredators (Roff et al. 2016), it is unknown how such injuries may impact the behavior and survival of large predatory sharks such as the white shark, *Carcharodon carcharias* (Linnaeus, 1758). Here, we present evidence of a white shark with a highly deformed pectoral fin that has been filmed twice over a five month period. Additionally, we discuss the possible functional consequences the white shark may have suffered and how this shark has most likely modified its behavior and survived during this time span.

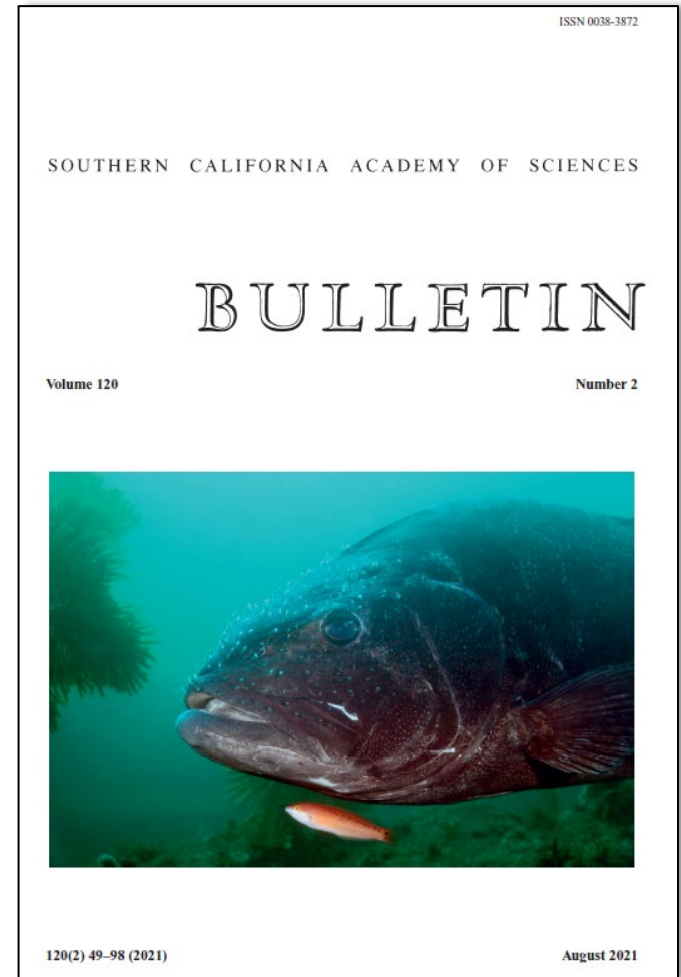
On the morning of 27 August 2020, a juvenile white shark of unknown sex (C. Gauna pers. comm.) with a deformed left pectoral fin was observed via drone just off the coast of Santa Barbara, California, USA (Fig. 1a). The pectoral fin was intact but was bent up at nearly a 90° angle practically flush against the body. The shark appeared to be swimming in the upright position without any indication of it swimming on a rolled axis despite its pectoral fin deformity (Fig. 1a and Supporting Information Video S1). However, the shark appears to be putting forth increased effort just to swim in an irregular motion (non-thunniform) most likely due to its pectoral fin deformity (Supporting Information Video S1). In addition, it is unknown if this was a birth deformity or if the deformity was sustained later in life by some other cause (i.e., natural or human related). On the evening of 17 January 2021, almost five months after the first observation, the same individual was filmed in the same area again (Fig. 1b).

\* Corresponding author: philsternes77@gmail.com



# General structure of a scientific paper

- Title
- Author(s) & Address(es)
- Abstract
- Introduction
- Materials and Methods
- Results
- Discussion
- Acknowledgements
- Literature Cited



Gives *logical flow* to content and facilitates info *retrieval*

# Introduction (Why did you do it?)

- First provide the ***context*** of the study

Fandel et al. 2015. **Effects of ocean recreational users on coastal bottlenose dolphins (*Tursiops truncatus*) in the Santa Monica Bay, California.** Bull. Southern California Acad. Sci., 114:63-75.

**Bottlenose dolphins** (*Tursiops truncatus*, hereafter bottlenose dolphins) are known to inhabit both pelagic waters and coastal regions, including bays and tidal creeks (Leatherwood et al. 1983). In the Pacific Ocean, a coastal and an offshore population of this species are currently recognized, showing morphological, osteological, and molecular differentiations (LeDuc and Curry 1998; Rossbach and Herzing 1999). Studies have suggested that coastal bottlenose dolphins are highly mobile within the inshore waters of the Santa Monica Bay, but also spend a large amount of time foraging and feeding in the bay (Bearzi 2005). Further, this species utilizes the region as a regular transit corridor between foraging hotspots along the California coast (Defran and Weller 1999; Bearzi 2005). An estimated 50 million tourists visit the Santa Monica Bay beaches each year<sup>1</sup>, many to partake in recreational activities including swimming, surfing, kayaking, and stand up paddle boarding. Swimmers, surfers, kayakers, and stand up paddle boarders are collectively defined as Ocean Recreational Users; hereafter ORUs. The year-round presence of both ORUs and bottlenose dolphins in the coastal waters of this region increases the likelihood of encounters between them.

## Introduction (cont.)

- First provide the ***context*** of the study

ORU presence has been proven to have adverse effects on dolphins in other areas worldwide. The occurrence of any vessel type, motorized or non-motorized, caused disturbances to dolphin behavior in Scotland (Pirodda et al. 2015). In New Zealand, Constantine (2001) observed sensitization and increased levels of avoidance with prolonged exposure to swimmers. Constantine (2002) also observed a decrease in bottlenose dolphin resting behavior when swimmers approached them in the wild. In Hawai'i, increased swimmer and kayak traffic led to decreased resting behaviors in spinner dolphins (*Stenella longirostris*; Samuels et al. 2000; Danil et al. 2005; Timmel et al. 2008; Ostman-Lind 2009). Spinner dolphins in Hawai'i also exhibited increased aerial behavior within their resting areas in correlation with the high number of swimmers in the area (Courbis and Timmel 2009). Indo-pacific dolphins (*Tursiops aduncus*) in Zanzibar displayed more frequent erratic (non-directional) behaviors in response to the increased presence of swimmers and boats (Stensland and Berggren 2007). Similarly, a study in West Cracoft Island, British Columbia found that when kayakers were present, killer whales (*Orcinus orca*) displayed avoidance behaviors, potentially resulting in changes to time spent feeding (Williams et al. 2011). Variations in behavioral states and decreased resting and feeding behaviors may cause a change in energetic demand, leading to changes in the lifetime fitness of the animal (Pirodda et al 2015; Williams 2011).

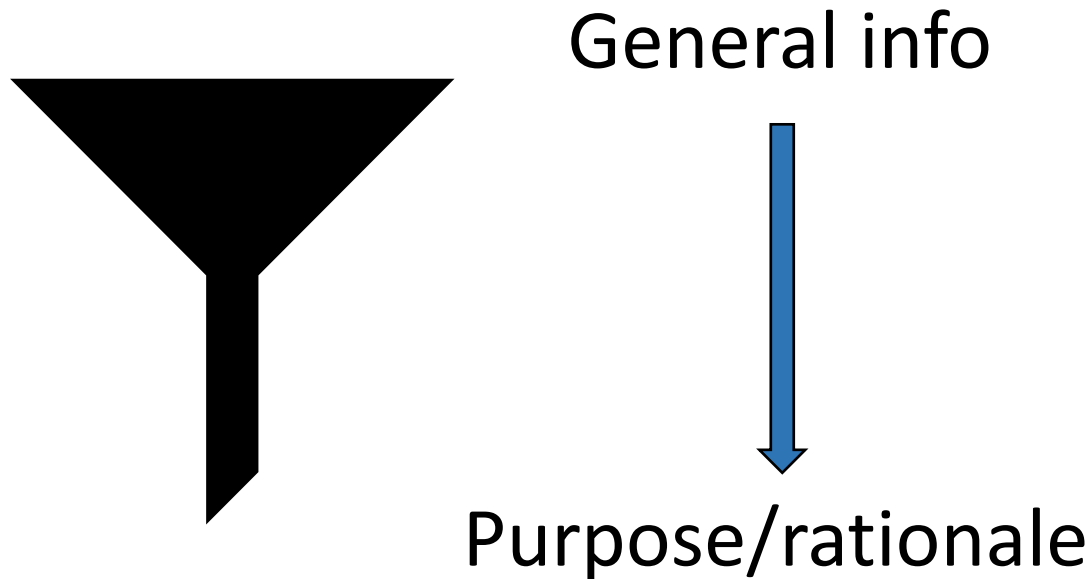
## Introduction (cont.)

- End with *purpose* of the study
  - May include hypothesis (hypotheses) or question(s)

Based on the negative effects of these encounters between ORUs and cetaceans documented in other areas worldwide, the National Marine Fisheries Service (NMFS) has expressed concern that humans swimming with wild dolphins in the U.S. may qualify as harassment, leading to the disruption to their natural behavior (Spradlin et al. 1999). In an attempt to curb this disruption, the NMFS has advised vessels and swimmers to avoid approaching the animals at distance of less than 50 meters. Both ORUs and bottlenose dolphins have been frequenting the Santa Monica Bay since the 1930s and the tourism presence along this shoreline has increased, especially in recent times. The impact of ORU activities on bottlenose dolphins, however, has not yet been investigated in this area. This preliminary study describes the potential behavioral effects on coastal bottlenose dolphins of encounters with ORUs in this region, and provides suggestions for management and conservation measures aimed to mitigate the impacts on these animals.

## Introduction (cont.)

- First provide the ***context*** of the study
- End with ***purpose*** of the study



## Introduction (cont.)

- ***Paraphrase*** the info in ***your own words*** **AND** ***cite*** those sources using ***author-date method***

1 source, 1 author

From Fandel et al. (2015).

prolonged exposure to swimmers. Constantine (2002) also observed a decrease in bottlenose dolphin resting behavior when swimmers approached them in the wild. In Hawai'i, increased swimmer and kayak traffic led to decreased resting behaviors in spinner dolphins (*Stenella longirostris*; Samuels et al. 2000; Danil et al. 2005; Timmel et al. 2008; Ostman-Lind 2009). Spinner dolphins in Hawai'i also exhibited increased aerial behavior within their resting areas in correlation with the high number of swimmers in the area (Courbis and Timmel 2009). Indo-pacific dolphins (*Tursiops aduncus*) in

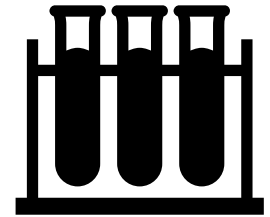
1 source, 2 authors

>1 source, mostly >2 authors

**See Slides 53-59 for citation rules!**

# Methods (How did you do it?)

- Provide ***chronological*** description of ***how the study was carried out***
- Include relevant info such as:
  - i. organism(s) studied
  - ii. description of study site
  - iii. description of experimental design (e.g., control/treatments)
  - iv. special equipment used (e.g., scanning electron microscope)
  - v. statistical methods used (e.g., ANOVA)



# Methods (cont.)

- You may want to organize this section into subsections

## Example:

➤ *Field sampling*



➤ *Laboratory methods*



➤ *Data analyses*





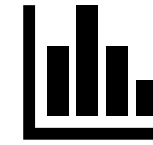
## Methods (cont.)

- Should be written in ***passive voice*** and in the ***past tense***

Coastal surveys (distance <1 km from shore) were conducted from February 1997 to September 2012 (excluding July 2002–August 2005, 2008 and 2010; Table 1), generally in the morning and early afternoon and in good weather conditions (Beaufort scale 2 or less, sea state 0 and visibility >300 m). Coastal surveys were conducted from 7m (1997–2000) and 10m powerboats (2001–2002, 2006–2007), and two 17m sailboats (2005–2006, 2009–2012), at an average speed of 18km h<sup>-1</sup>. Boat speed was reduced in the presence of dolphins, and sudden speed or directional changes were avoided. Trained research

From Fandel et al. (2015).

## Methods (cont.)



- Include **Figures** (e.g., picture, map, diagram) if necessary
  - i. Are **numbered sequentially** (ex. **Fig. 1, Fig. 2**)
  - ii. Typically **cited within parentheses** in the text

upwelling off southern California and northern Baja California (Leising et al. 2014). Despite the lack of even a moderate El Niño, the remainder of 2014 and early 2015 was marked by warmer than normal SSTs along the entire west coast of North America (**Fig. 1**) (Leising et al.

From Goddard et al. (2016).

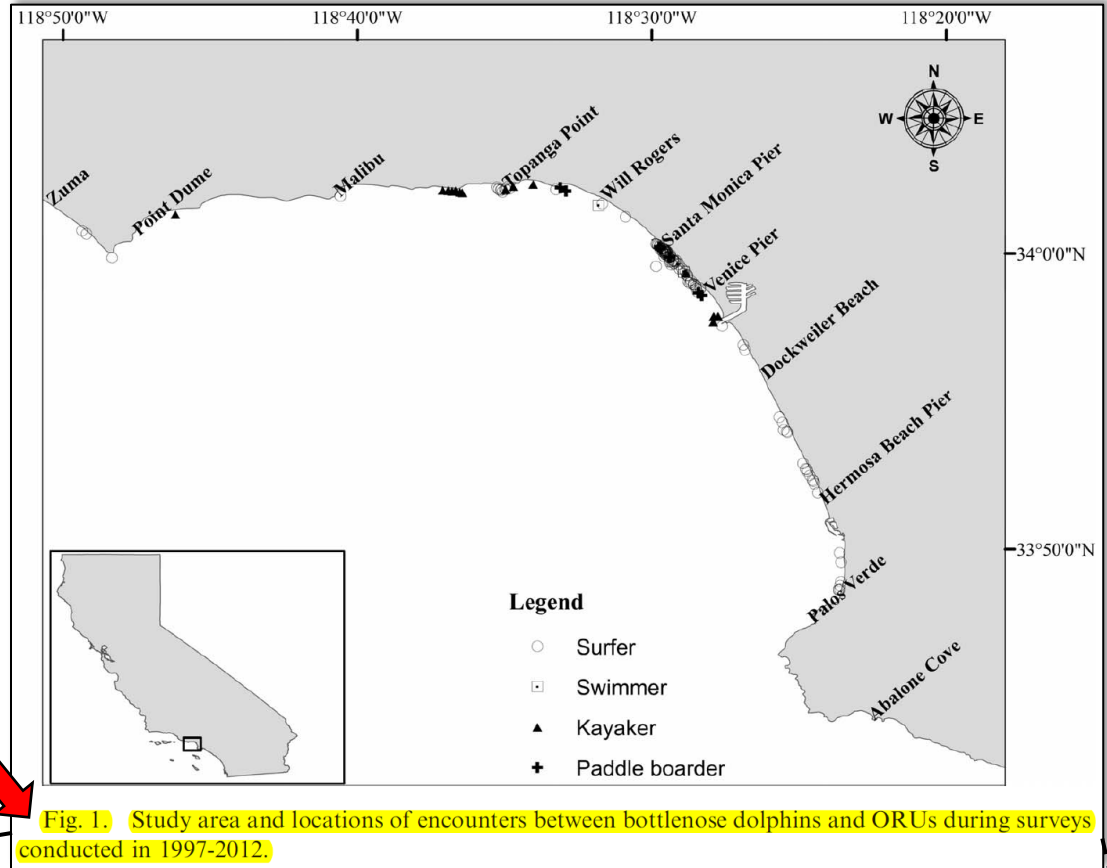
## Another way of citing a figure...

Molecular results are presented first, followed by species accounts containing information on comparative morphology, distribution and habitat to provide a baseline characterization of each taxon within the context of the groupings **shown in Fig. 3.**

From Goodward et al. (2017).

# Methods (cont.)

Include a  
**figure caption**  
(place at the  
**bottom** of  
the figure)



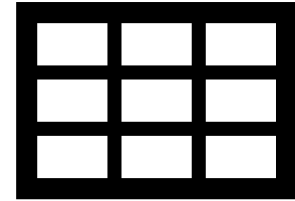
**Fig. 1.** Study area and locations of encounters between bottlenose dolphins and ORUs during surveys conducted in 1997-2012.

From Fandel et al. (2015).

**\*Use “Fig.,” NOT “Figure” in the caption!**

## Methods (cont.)

- Include ***Tables*** if necessary
  - i. Also ***numbered sequentially*** (ex. **Table 1, Table 2...**)
  - ii. Also cited ***within parentheses*** in the text



From 1 February 2012 to 26 February 2014, fishes and macrophyte surveys were conducted from the beginning to end of the study. Invertebrate surveys were conducted beginning on 22 June 2012 and continued until the end of the study. Surveys were conducted on a total of 38 days (Table 1). We note that the natural habitat was sand and eelgrass. Over the course of the study,

From Love et al. (2017).

## Methods (cont.)

iii. Include a **caption** (place at ***top*** of Table)

Table 1. Summary of research effort for coastal surveys in Santa Monica Bay conducted from 1997 to 2012. No data were collected: July 2002–August 2005, 2008, and 2010. BD=bottlenose dolphins.

	1997	1998	1999	2000	2001	2002	2005	2006	2007	2009	2011	2012	Totals
N of surveys	16	55	39	33	27	9	3	14	8	3	6	7	220
N of sightings	7	58	32	16	18	6	6	21	16	5	13	11	209
Survey hours	123	214	155	119	121	60	16	23	41	11	29	25	937
Number of 5 min samples	68	722	345	212	273	38	68	147	135	19	182	72	2,281
Hours of BD observation	6	60	29	18	23	3	6	12	11	2	15	6	190

From Fandel et al. (2015).

iv. “Table” is **NOT abbreviated** in the caption

v. Use only ***horizontal lines*** to separate sections of Table

# Results (What did you find?)

- Present **key** results in a logical sequence
  - i. Report only **facts** (no data interpretation)

During the study period, 145 encounters were recorded between 72 bottlenose dolphin schools and ORUs throughout the survey area (34.45%,  $n=209$  sightings; Fig. 1, Table 2). An average of nine dolphins were involved in each encounter (SD=4.66, SE=0.03, range 2-19 individuals,  $n=145$  encounters). Few encounters lasted more than five minutes (4.55%,  $n=176$  encounters). It was common for a single bottlenose dolphin focal group to experience two or more encounters with an ORU during observation (40.28%,  $n=72$  schools; Table 2). Multiple ORUs were encountered by 16.67% of focal

From Fandel et al. (2015).

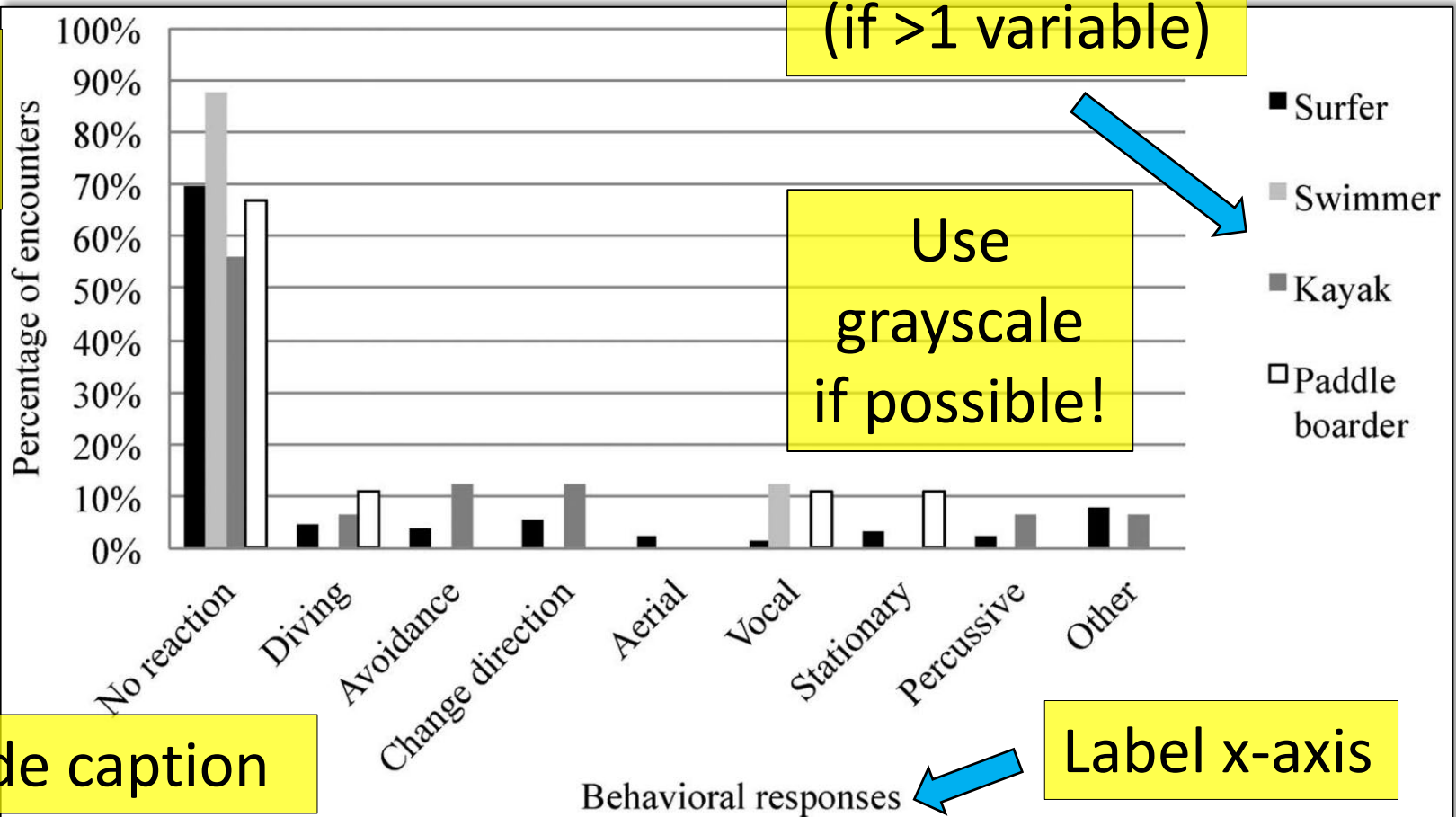
- ii. Highlight results that answer the question under investigation
- Usually contains no citations
  - Summarize results in **Tables** and/or **Figures**

# Results (cont.)

- For *graphs* (= Figures):

Include *legend*  
(if >1 variable)

Label  
y-axis



Include caption

Label x-axis

Fig. 4. Reactions (or lack of) to an encounter with one or more surfer, kayaker, stand-up paddle boarder, and/or swimmer during a 5-minute behavioral interval.

# Results (cont.)

- Things to avoid:
  - Do **NOT** describe each value from a Figure or Table (describe key result or trends)

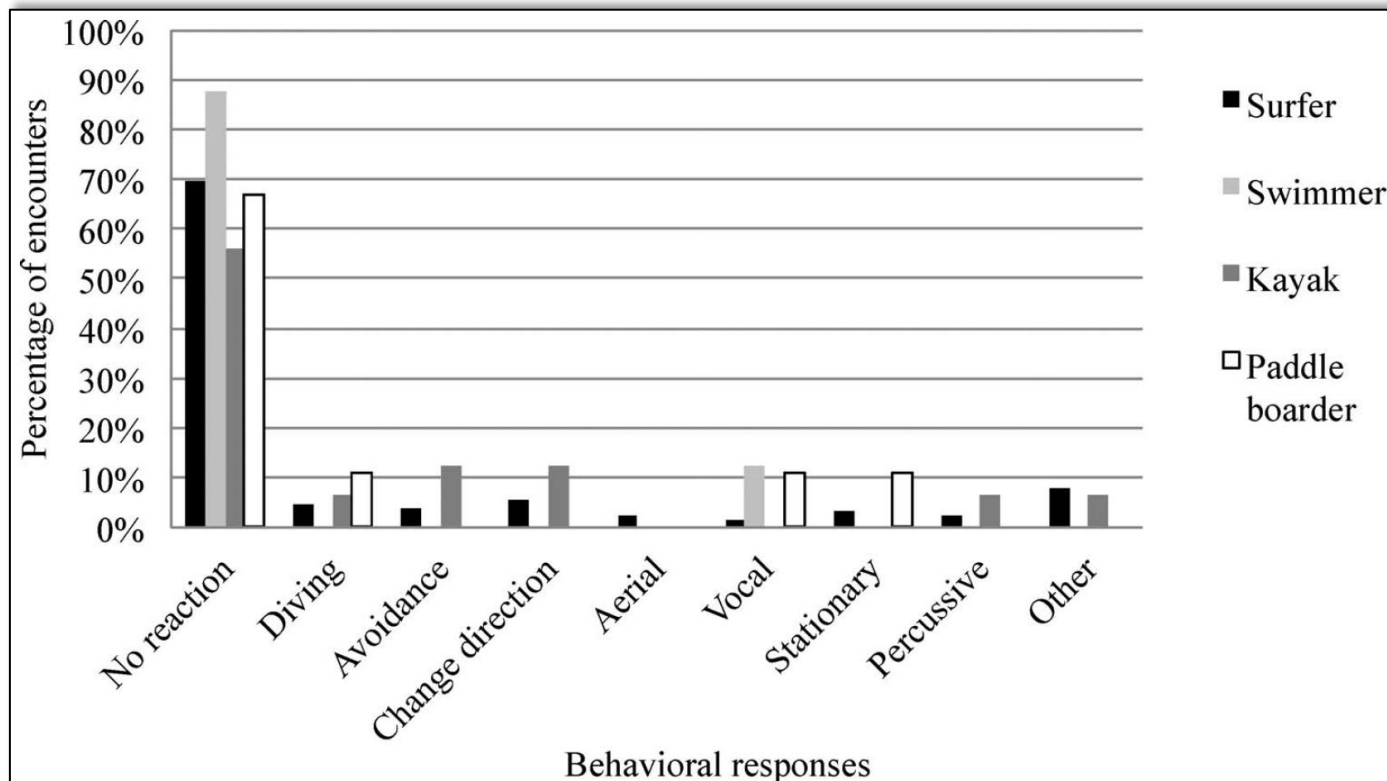
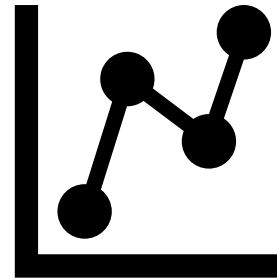
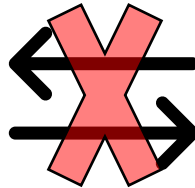
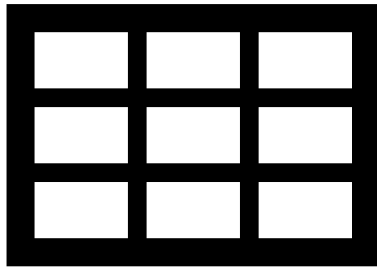


Fig. 4. Reactions (or lack of) to an encounter with one or more surfer, kayaker, stand-up paddle boarder, and/or swimmer during a 5-minute behavioral interval.



## Results (cont.)

- Things to avoid:
  - **Do NOT present the same data in both a Table and Figure**



# Results (cont.)

- Things to avoid:
  - **Do NOT report raw data values**  
(summarize as means, %, etc.)

Table 1. Estimated larval durations, settlement sizes (standard length), and growth rates of the Arrow Goby (*Clevelandia ios*) and Tidewater Goby (*Eucyclogobius newberryi*) pooled over all study sites ( $n = 8$  and 10 study sites for the two species, respectively).

Species	Larval duration		Settlement		Growth rate	<i>N</i>
	Range (days)	Mean $\pm$ SD (days)	Otolith radius ( $\mu\text{m}$ )	Length (mm)	Mean $\pm$ SD ( $\mu\text{m}/\text{day}^{-1}$ )	
<i>E. newberryi</i>	18 - 31	23.95 $\pm$ 2.71	75.62 $\pm$ 6.40	12.38 $\pm$ 0.36	2.86 $\pm$ 0.23	406
<i>C. ios</i>	20 - 33	26.11 $\pm$ 2.40	77.61 $\pm$ 6.37	10.00 $\pm$ 0.71	2.60 $\pm$ 0.22	317

From Spies et al. (2014).

# Discussion (What do your results mean?)

- Present your *interpretation* of results, significance of the study, and any limitations

Surfers were the most common ORU encountered by dolphins in the study area. This result is likely due to the fact that Southern California has been a top US surf destination since the 1930's (Irwin 1973) and the sport continues to grow in popularity. On the contrary, swimmers were only occasionally involved in encounters with dolphins along this coastline. This may be explained by the presence of these ORUs close to the beach while coastal bottlenose dolphins tend to move slightly more offshore. In other areas

From Fandel et al. (2015).

## Discussion (cont.)

- **Compare** results with findings from previous studies

As expected, our preliminary results indicated that the proximity of ORUs to dolphins during encounters was the best predictor of whether a behavioral reaction would be elicited from the dolphin. If one or more dolphin and an ORU came within three meters of one another during an encounter, a behavioral change was likely to occur. Increased dolphin behavioral changes as a result of close encounters with ORUs are consistent with Bedjer et al. (1999) findings, which determined that the distance between an ORU and dolphins during an encounter was the most reliable predictor of a change in dolphin behavior. Williams (2011) also found that orcas (*Orcinus orca*) were more likely to exhibit

From Fandel et al. (2015).

## Discussion (cont.)

- State your ***conclusion(s)*** and propose ***future*** investigations if warranted

In conclusion, this preliminary investigation suggests the need of regular monitoring of coastal bottlenose dolphins and encounters with ORUs to determine potential changes in these animals' behavior. Also, it suggests the necessity of implementing public education program and management measures to ensure that dolphins remain undisturbed by the growing number and diversity of anthropogenic presence in the bay.

From Fandel et al. (2015).

### Conclusions

From Brattstrom (2013).

1. The original range of the horned lizard was throughout Southern California but with no historical or recent records from the Los Angeles-Orange county basin and the Pomona, Ontario, San Bernardino area except along river flood plains and isolated hills. There are no historical or recent records or the area about Temecula.
2. The horned lizard occurs in the coastal and inland physiographic provinces and in the extension of the latter into the Little San Bernardino Mountains to Joshua Tree National Park.
3. The horned lizard localities occur in habitats including some urban habitats.

# Acknowledgements (Who helped you out?)

- **Thank** people who assisted with the study (e.g., those who helped in the lab or reviewed the paper), as well as the funding agency

## Acknowledgements

We thank Brian Colgate and Jeff Cecilia of the Santa Barbara Fish Market, Santa Barbara, CA for bringing this rare specimen to our attention and making it available for study. Thanks also go out to Holly Hawk from California State University Northridge (CSUN) and Gary Burke of the California Gill Netters Association for their collective efforts in obtaining and transporting the head of the specimen. Bart Bagdasaryan helped prepare and photograph the otolith sections. Mark Steele (CSUN) provided the microscope, video camera, and imaging software necessary for the ageing work. Radiocarbon measurements were performed by National Ocean Sciences Accelerator Mass Spectrometry Facility at the Woods Hole Oceanographic Institution. Ed DeMartini and two anonymous reviewers provided very insightful comments on the manuscript. Funds for this work were provided by the Nearshore Marine Fish Research Program, Department of Biology, California State University Northridge.

# Literature Cited (Whose work did you refer to?)

- Include ***alphabetical list*** (by first author's last name) of ***all references cited*** in body of paper

## Literature cited

- Allredge, A.L. 1972. Abandoned larvacean houses: a unique food source in the pelagic environment. *Science*, 177:885–887.
- Alston, S., G.A. Boxshall, and J.W. Lewis. 1996. The life-cycle of *Ergasilus briani* Markewitsch, 1993 (Copepoda: Poecilostomatoida). *Syst. Parasitol.*, 35:79–110.
- Bowman, T.E., and L.S. Kornicker. 1967. Two new crustaceans: the parasitic copepod *Sphaeronelopsis monothrix* (Choniostomatidae) and its myodocopid ostracod host *Parasterocope pollex* (Cylindroleberidae) from the southern New England coast. *Proc. U. S. Nat. Mus.*, 123:1–28.
- Boxshall, G.A. 2005. Crustacean parasites (Copepoda). Pp. 123–138 in *Marine Parasitology* (K. Rohde, ed.). CABI Publishing, Wallingford and CSIRO Publishing, Collingwood, 592 pp.
- , and S.H. Halsey. 2004. *An introduction to copepod diversity*. The Ray Society, London, 966 pp.

## Literature Cited (cont.)

- Include ***alphabetical list*** (by first author's last name) of ***all references cited*** in body of paper

Journal article

Literature cited

Allredge, A.L. 1972. Abandoned larvacean houses: a unique food source in the pelagic environment. *Science*, 177:885–887.

Alston, S., G.A. Boxshall, and J.W. Lewis. 1996. The life-cycle of *Ergasilus briani* Markewitsch, 1993 (Copepoda: Poecilostomatoida). *Syst. Parasitol.*, 35:79–110.

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Bowman, T.E., and L.S. Kornicker. 1967. Two new crustaceans: the parasitic copepod *Sphaeronelopsis monothrix* (Choniostomatidae) and its myodocopid ostracod host *Parasterocope pollex* (Cylindroleberidae) from the southern New England coast. *Proc. U. S. Nat. Mus.*, 123:1–28.

Boxshall, G.A. 2005. Crustacean parasites (Copepoda). Pp. 123–138 in *Marine Parasitology* (K. Rohde, ed.). CABI Publishing, Wallingford and CSIRO Publishing, Collingwood, 592 pp.

——, and S.H. Halsey. 2004. An introduction to copepod diversity. The Ray Society, London, 966 pp.

From Ohtsuka et al. (2018).

↑  
Book Chapter

## Literature Cited (cont.)

- Include ***alphabetical list*** (by first author's last name) of ***all references cited*** in body of paper

### Literature cited

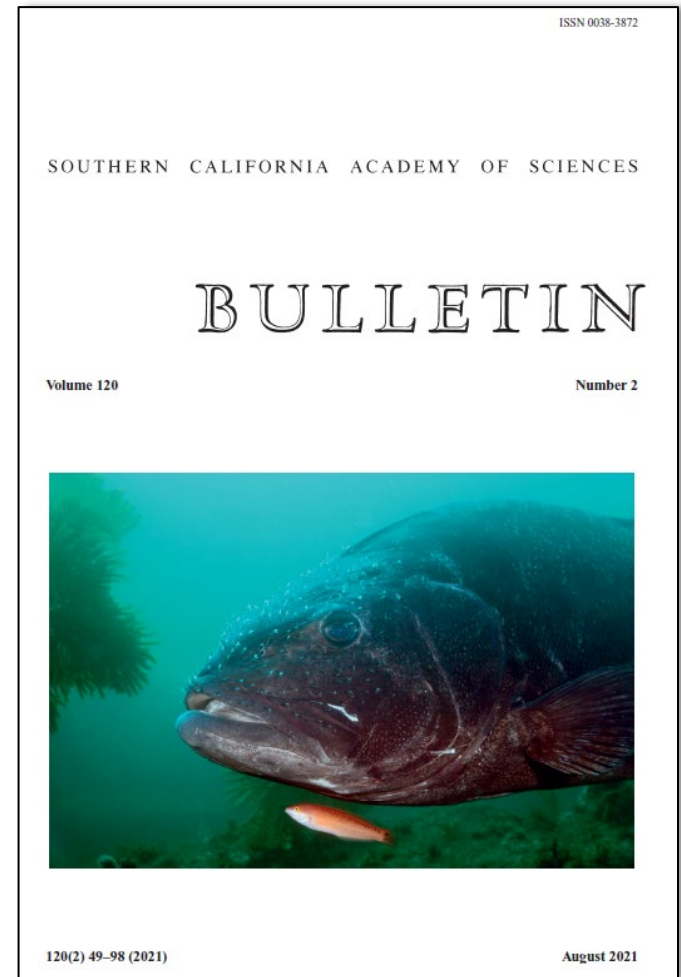
- Allredge, A.L. 1972. Abandoned larvacean houses: a unique food source in the pelagic environment. *Science*, 177:885–887.
- Alston, S., G.A. Boxshall, and J.W. Lewis. 1996. The life-cycle of *Ergasilus briani* Markewitsch, 1993 (Copepoda: Poecilostomatoida). *Syst. Parasitol.*, 35:79–110.
- Bowman, T.E., and L.S. Kornicker. 1967. Two new crustaceans: the parasitic copepod *Sphaeronelopsis monothrix* (Choniostomatidae) and its myodocopid ostracod host *Parasterocope pollex* (Cylindroleberidae) from the southern New England coast. *Proc. U. S. Nat. Mus.*, 123:1–28.
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From Ohtsuka et al. (2018).

**See Slides 60-67 for literature cited rules!**

# General structure of a scientific paper

- Title
- Author(s) & Address(es)
- Abstract
- Introduction
- Materials and Methods
- Results
- Discussion
- Acknowledgements
- Literature Cited



## Title (What is the paper about?)

- Devise a succinct title ( $\leq 20$  words) that describes the **content** of the paper

The Return of the King of the Kelp Forest: Distribution, Abundance, and Biomass of Giant Sea Bass (*Stereolepis gigas*) off Santa Catalina Island, California, 2014-2015

From House et al. (2016).

- A good title grabs the reader's **attention**
- Using **key words** in your title will help readers find your paper via online database searches (e.g., Web of Science, Science Direct, PubMed, Google Scholar)

# Author(s) and address(es) (Who did the work?)

Typically the person who contributed the most to the study is listed first and the person who did the least is listed last



Parker H. House\*, Brian L.F. Clark, and Larry G. Allen

*California State University, Northridge, Department of Biology, 18111 Nordhoff St.,  
Northridge, CA, 91330*

From House et al. (2016).



All three authors are affiliated with this institution

\* = ***corresponding author*** (include email address of this person at bottom of First Page)

## Author(s) and address(es) (cont.)

If the authors are affiliated with different institutions, then use ***superscript numbers*** to designate authors' institutional address

For example...

Michelle L. Barton<sup>1</sup>\*, Ivan D. Medel<sup>2</sup>, Karina K. Johnston<sup>2</sup>, and Christine R. Whitcraft<sup>1</sup>  
<sup>1</sup>*California State University Long Beach*  
<sup>2</sup>*Santa Monica Bay Restoration Commission*

From Barton et al. (2016).

# Abstract (What did you do in a nutshell?)

- Provide a ***succinct summary*** of the paper ( $\leq 250$  words & written in ***past tense***) that includes:
  - i. a brief introduction
  - ii. question(s) investigated/purpose of study
  - iii. methods used
  - iv. main findings
  - v. conclusions

# Abstract (cont.)

- A breakdown of the Abstract...

*Abstract.*—It is rare to find evidence of top predators recovering after being negatively affected by overfishing. However, recent findings suggest a nascent return of the critically endangered giant sea bass (*Stereolepis gigas*) to southern California. To provide the first population assessment of giant sea bass, surveys were conducted during the 2014/2015 summers off Santa Catalina Island, CA. Eight sites were surveyed on both the windward and leeward side of Santa Catalina Island every two weeks from June through August. Of the eight sites, three aggregations were identified at Goat Harbor, The V's, and Little Harbor, CA. These three aggregation sites, the largest containing 24 individuals, contained a mean stock biomass of 19.6 kg/1000 m<sup>2</sup> over both summers. Over the course of both summers the giant sea bass population was primarily made up of 1.2 - 1.3 m TL individuals with several small and newly mature fish observed in aggregations. Comparison to historical data for the island suggests giant sea bass are recovering, but have not reached pre-exploitation levels.

From House et al. (2016).

## Introduction



# Abstract (cont.)

- A breakdown of the Abstract...

*Abstract.*—It is rare to find evidence of top predators recovering after being negatively affected by overfishing. However, recent findings suggest a nascent return of the critically endangered giant sea bass (*Stereolepis gigas*) to southern California. To provide the first population assessment of giant sea bass, surveys were conducted during the 2014/2015 summers off Santa Catalina Island, CA. Eight sites were surveyed on both the windward and leeward side of Santa Catalina Island every two weeks from June through August. Of the eight sites, three aggregations were identified at Goat Harbor, The V's, and Little Harbor, CA. These three aggregation sites, the largest containing 24 individuals, contained a mean stock biomass of 19.6 kg/1000 m<sup>2</sup> over both summers. Over the course of both summers the giant sea bass population was primarily made up of 1.2 - 1.3 m TL individuals with several small and newly mature fish observed in aggregations. Comparison to historical data for the island suggests giant sea bass are recovering, but have not reached pre-exploitation levels.

From House et al. (2016).

Purpose of study

# Abstract (cont.)

- A breakdown of the Abstract...

*Abstract.*—It is rare to find evidence of top predators recovering after being negatively affected by overfishing. However, recent findings suggest a nascent return of the critically endangered giant sea bass (*Stereolepis gigas*) to southern California. To provide the first population assessment of giant sea bass, surveys were conducted during the 2014/2015 summers off Santa Catalina Island, CA. Eight sites were surveyed on both the windward and leeward side of Santa Catalina Island every two weeks from June through August. Of the eight sites, three aggregations were identified at Goat Harbor, The V's, and Little Harbor, CA. These three aggregation sites, the largest containing 24 individuals, contained a mean stock biomass of 19.6 kg/1000 m<sup>2</sup> over both summers. Over the course of both summers the giant sea bass population was primarily made up of 1.2 - 1.3 m TL individuals with several small and newly mature fish observed in aggregations. Comparison to historical data for the island suggests giant sea bass are recovering, but have not reached pre-exploitation levels.

From House et al. (2016).

## Methods

# Abstract (cont.)

- A breakdown of the Abstract...

*Abstract.*—It is rare to find evidence of top predators recovering after being negatively affected by overfishing. However, recent findings suggest a nascent return of the critically endangered giant sea bass (*Stereolepis gigas*) to southern California. To provide the first population assessment of giant sea bass, surveys were conducted during the 2014/2015 summers off Santa Catalina Island, CA. Eight sites were surveyed on both the windward and leeward side of Santa Catalina Island every two weeks from June through August. Of the eight sites, three aggregations were identified at Goat Harbor, The V's, and Little Harbor, CA. These three aggregation sites, the largest containing 24 individuals, contained a mean stock biomass of 19.6 kg/1000 m<sup>2</sup> over both summers. Over the course of both summers the giant sea bass population was primarily made up of 1.2 - 1.3 m TL individuals with several small and newly mature fish observed in aggregations. Comparison to historical data for the island suggests giant sea bass are recovering, but have not reached pre-exploitation levels.

From House et al. (2016).

## Main results

# Abstract (cont.)

- A breakdown of the Abstract...

*Abstract.*—It is rare to find evidence of top predators recovering after being negatively affected by overfishing. However, recent findings suggest a nascent return of the critically endangered giant sea bass (*Stereolepis gigas*) to southern California. To provide the first population assessment of giant sea bass, surveys were conducted during the 2014/2015 summers off Santa Catalina Island, CA. Eight sites were surveyed on both the windward and leeward side of Santa Catalina Island every two weeks from June through August. Of the eight sites, three aggregations were identified at Goat Harbor, The V's, and Little Harbor, CA. These three aggregation sites, the largest containing 24 individuals, contained a mean stock biomass of 19.6 kg/1000 m<sup>2</sup> over both summers. Over the course of both summers the giant sea bass population was primarily made up of 1.2 - 1.3 m TL individuals with several small and newly mature fish observed in aggregations. Comparison to historical data for the island suggests giant sea bass are recovering, but have not reached pre-exploitation levels.

From House et al. (2016).

## Conclusion

## Abstract (cont.)

- One of the *most important sections* of a paper because it *helps readers decide whether to read or download the remainder of the paper*

**\*Abstract submission deadline  
for the SCAS 2024 Annual Meeting:  
TBD in March 2024**

## Dos and Don'ts

- Suggest writing your paper *in this order*:
  - i. Materials and Methods
  - ii. Results
  - iii. Discussion
  - iv. Introduction
  - v. Abstract
  - vi. Literature Cited
  - vii. Title & Authors + Affiliations
  - viii. Acknowledgements

## Dos and Don'ts (cont.)

- ***Exceptions*** to *Bulletin of the SCAS* guidelines
  - i. Use 1 inch margins (not 1.5 inches)
  - ii. Include page numbers at bottom center
  - iii. Do NOT include a running title and key words
  - iv. Include an “Introduction” heading (see next slide for example)

# Dos and Don'ts (cont.)

## A NEW SPECIES of *Lepeophtheirus* (COPEPODA; CALIGIDAE) PARASITIC on THREE KELPFISH SPECIES (CLINIDAE) from the SOUTHERN CALIFORNIA COAST

Julianne Kalman Passarelli<sup>1\*</sup> and Danny Tang<sup>2</sup>

<sup>1</sup>Cabrillo Marine Aquarium, 3720 Stephen M. White Drive, San Pedro, CA 90731, USA  
<sup>2</sup>Laboratory, Monitoring, and Compliance Division, Orange County Sanitation District, 10844 Ellis Ave, Fountain Valley, CA 92708, USA

**Abstract.**—A new copepod species, *Lepeophtheirus schaadti* n. sp., is established based on female and male specimens obtained from the Giant Kelpfish, *Heterostichus rostratus* Girard, 1854, and Striped Kelpfish, *Gibbonsia metzi* Hubbs, 1927, captured at Inner Cabrillo Beach in southern California, U.S.A. In addition, comparisons with copepod specimens identified by Wilson (1935) as *L. parviventris* Wilson, 1905 from the Spotted Kelpfish, *Gibbonsia elegans* (Cooper, 1864), in Newport Bay, California, revealed they are conspecific with *L. schaadti* n. sp. The new species differs from its congeners by a combination of characters that include: female with a genital complex that is more than half the length of the cephalothoracic shield and with posterolateral lobes, an abdomen that is composed of one somite and is less than one-quarter the length of the genital complex, a maxillary dentiform process bearing a thin ridge on the inner tine and lacking a basal knob, no myxal process on the maxilliped, apically rounded tines on the sternal furca, the spine on the first exopodal segment of leg 3 inserted distally on the basal swelling, a 3-segmented leg 4 exopod, and a broad inner lobe of leg 5 that does not extend beyond the posterior margin of the genital complex; and male with three accessory claws on the antennal endopod and no myxal process on the maxilliped. *L. schaadti* n. sp. represents the first account of an ectoparasitic species from the Striped Kelpfish and Spotted Kelpfish, as well as the fourth ectoparasitic species reported from the Giant Kelpfish.

### Introduction

Members of the copepod family Caligidae Burmeister, 1835, commonly known as sea lice, are predominantly external parasites of marine fishes (Dojiri and Ho 2013). Among the 30 valid caligid genera, *Lepeophtheirus* von Nordmann, 1832 is one of the more speciose genera, with 121 valid species and 2 recognized subspecies (Boxshall and Walter 2016). *Lepeophtheirus* parasitizes marine teleosts worldwide but is more diverse in temperate latitudes (Kabata 1979). One species, *Lepeophtheirus salmonis* (Krøyer, 1837) sensu lato, is the most pathogenic ectoparasite on farmed salmonids in the northern hemisphere (Johnson et al. 2004; Costello 2006). Presently, 17 species of *Lepeophtheirus* have been reported from 16 fish families along the California coast, from San Francisco Bay in the north to La Jolla in the south of the state (Table 1). Recent samples of Giant Kelpfish (*Heterostichus rostratus* Girard, 1854) and Striped Kelpfish (*Gibbonsia metzi* Hubbs, 1927) (Clinidae Swainson, 1839) collected within the Port of Los Angeles during Cabrillo Marine Aquarium's Inner Cabrillo Beach Survey (ICBS) were infected with an unidentified species of *Lepeophtheirus*. The ICBS is a long-term, tri-annual survey designed to monitor the abundance and diversity of the invertebrates and fishes living in

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# Dos and Don'ts (cont.)

- **Exceptions to Bulletin of the SCAS guidelines**  
v. Provide tables & figures at end of paper or embed them in body of paper (see below)

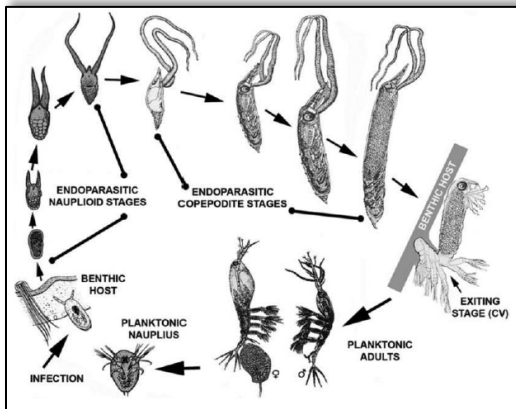


Fig. 1. Generalized life cycle of the Monstrilloidea (based on Malaquin 1901; Suárez-Morales et al. 2014; Huys 2014).

homologies elusive. The ancestral links of these copepods remain hidden, a challenging mystery.

The Monstrilloidea comprises a peculiar lineage of protelean parasitic copepods. They are endoparasitic in marine benthic invertebrates during their postnaupliar and copepodite stages but also have basically two free-living, planktonic phases, an infective naupliar stage and exclusively reproductive adult (Fig. 1; Malaquin 1901; Suárez-Morales et al. 2014). So, they are known mainly from adult individuals that are captured during zooplankton surveys in coastal environments (Suárez-Morales 2011).

As is true for many other highly modified copepods, their general morphology can be described oxymoronically as a model of complex simplicity. The lack of feeding appendages in monstrilloids has urged researchers to find new characters and explore their taxonomic value. In two essential publications, Grygier and Ohtsuka (1995, 2008) have contributed much to achieve this. The monstrilloids are currently represented by five valid genera: *Monstrilla* Dana, 1849, *Cymbasoma* Thompson, 1888, *Monstrillopsis* Sars, 1921, *Macmonstrilla* Grygier and Ohtsuka, 2008, and the recently described *Australomonstrillopsis* Suárez-Morales and McKinnon, 2014.

The main taxonomic characters used to identify monstrilloids include their body shape and proportions, the antennule length, the presence and development of the eyes, the position of the oral papilla, and the number of caudal setae, this last being one of the genus-defining features (Suárez-Morales 2011, 2015). Other characters are related to the

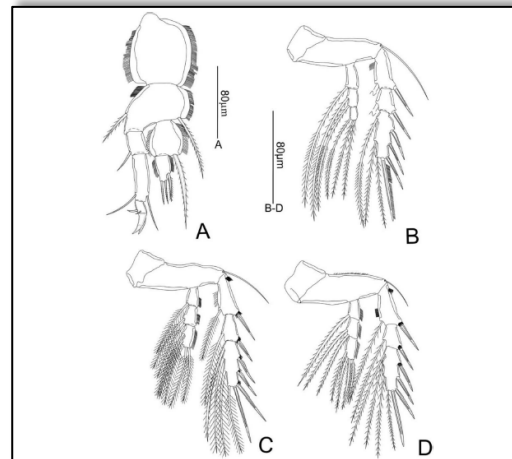


Fig. 4. *Pelidium camilae* n. sp., adult female. (A) Leg 1; (B) Leg 2; (C) Leg 3; (D) Leg 4.

outer spine; second segment longest, about 2 times as long as first segment, with outer subdistal spine and inner subdistal element; third segment with 2 subdistal and 2 distal claws. Endopod 2-segmented, shorter than exopod; first segment globose, with 1 long inner seta and row of short setules along inner and outer margins; second segment with 1 inner seta and 1 pinnate spine and 1 slender seta apically.

Legs 2 to 4 (Figs. 4B-D) with small coxa. Basis transversely elongated, with long outer seta. Rami 3-segmented. Endopod shorter than exopod. Armature of swimming legs 2-4 as in Table 1. Armature formula as follows, from internal to external positions:

Table 1. Armature of swimming legs 2-4 (spines in Roman numerals, setae in Arabic) of *Pelidium camilae* sp. n. Sequence follows internal to external positions.

Leg	Exopod	Endopod
P2	1-1; 1-1; 2,1+I,III	1-0; 2-0; 1,2,0
P3	1-1; 1-1; 3,1+I,III	1-0; 2-0; 3,2,0
P4	1-1; 1-1; 3,1+I,III	1-0; 2-0; 2,2,0

Table 2. Percent genetic distances for the six populations of *Canthocamptus* spp. based on mtCOI sequences.

Population	Pääjärvi	Vänern	SPB	Vörtsjärv	Geneva
Pääjärvi	2.5				
Vänern	22.5	22.1			
SPB	23.5	23.7	3.1		
Vörtsjärv	23.4	23.1	2.1	1.2	
Geneva	25.5	27.0	26.8	26.2	26.6
<i>C. microstaphylinus</i>					

with above mentioned primers. In case of double peaks or ambiguous base calls each sequence was compared with obtained chromatograms, a signal that exceeded the other was taken into account. All processing was done at the Center for Collective Use "Molecular Biology" of the Institute of Biology, part of the Komi Scientific Center of the Ural Branch of the Russian Academy of Science.

Nucleotide sequences were aligned with the algorithm CrustaW and corrected manually (due to several shifts of nucleotide motifs after alignment) using the program package Geneious (version 7.0.6.) (Kearse 2012). Phylogenetic trees were also constructed in Geneious using a Maximum Likelihood method with a high level of the bootstrap coefficient (1000 replications). A median network of haplotypes was constructed with Network 4.6.1.3 (Bandelt 1999). Statistical analysis of the DNA polymorphism was performed in DNAsp 5.10 (Librado 2009). All sequences of *C. staphylinus* were registered in GenBank under the accession numbers KP974713-KP974719 and MG209708-MG209737. In addition, a sequence of *C. microstaphylinus* (accession number KP974734.1) sampled and sequenced according to methods described above was included in the phylogenetic analysis. For comparison, three further sequences obtained from the GenBank were added: *C. staphylinus* from Northern Germany (MF077881.1), *Canthocamptus coreensis* Chang, 2002 (KT030277.1) and *Elaphoidella humphreysi* Karanovic, 2006 (JN039173).

## Results

A total of 43 *C. staphylinus* females were sequenced for the mtCOI gene. Males were observed in all populations except the parthenogenetic one in Pääjärvi. Moreover, some of the females in Pääjärvi were bearing egg sacs but had no spermatophores attached to their bodies, suggesting that mating had not taken place for these individuals.

Phylogenetic analysis revealed two strongly separated clades with maximum pairwise divergences of 23.7% between geographically separate populations (Fig. 2, Table 2). All clades were strongly supported by bootstrap percentages and were divided mostly according to the populations' geographical locations. The clade I was common for three populations of the species *C. staphylinus*: the type locality in Lake Geneva, Orlov Pond in Saint Petersburg and Lake Vörtsjärv. These three populations formed three main groups that roughly but not completely followed their geographical origin with genetic divergences between them varying from 1.2% to 3.1%. Two sequences of *C. staphylinus* from Orlov pond were placed in the group for Lake Geneva sequences, while two sequences of the species from Lake Geneva fell into groups for Lake Vörtsjärv and Orlov pond. The clade II included two subclades, consisting of the parthenogenetic population from Lake Pääjärvi and the dioecious population from Lake Vänern together with the sequence of

## Dos and Don'ts (cont.)

- Use the *metric system* (e.g., cm, kg, °C)
- A paper needs to *flow*
- Prepare 1<sup>st</sup> draft *sooner* rather than later
- Ask your co-author(s), mentors, teachers, and peers to *review* your paper
- *Proofread* your paper before submission
- **Deadline for paper submission to Kimo: April 15, 2024!**
- See SCAS's **Research Training Program** webpage ([Research Training Program Paper and Poster Materials \(nhm.org\)](https://nhm.org/research-training-program-paper-and-poster-materials)) for additional materials

## Useful websites



<https://www.springer.com/us/authors-editors/authorandreviewertutorials/writing-a-journal-manuscript>

<https://www.elsevier.com/connect/11-steps-to-structuring-a-science-paper-editors-will-take-seriously>

<http://writing.colostate.edu/guides/guide.cfm?guideid=83>

## Useful guide

Turbek et al. (2016) Scientific writing made easy: a step-by-step guide to undergraduate writing in the biological sciences. *Bulletin of the Ecological Society of America* 97:417-426.

<https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/bes2.1258>

# Any questions?



Email: [dtang@ocsan.gov](mailto:dtang@ocsan.gov)

# Rules for citing sources

- When you use information from primary literature (and other sources), you must paraphrase the info in ***your own words***, as well as ***cite*** those sources
  - i. Use author-date method of citation:
    - If the ***author is the subject*** of the sentence, include author's last name and enclose the year in parentheses

## **Example 1 (*single author*):**

**Ortiz (2014)** also observed very few aggressive interactions between *S. niger* and *S. griseus* in her local study areas. Regardless of the mechanism, the loss of *S. griseus* in these areas –

## Rules for citing sources (cont.)

- i. Use author-date method of citation:
  - If the ***author is the subject*** of the sentence, include author's last name and enclose the year in parentheses

### **Example 2 (*two authors*):**

Yamasaki and Maeda (2007) documented a 78-146 day larval duration in *Stiphodon percnopterygionus*, a stream-associated goby found in Okinawa Island, southern Japan.

From Spies et al. (2014).

**\*Use “and”, NOT “&” between last names**

## Rules for citing sources (cont.)

- i. Use author-date method of citation:
  - If the ***author is the subject*** of the sentence, include author's last name and enclose the year in parentheses

### **Example 3 (*more than two authors*):**

Jeong et al. (2008) found that as the volume of runoff entering Talbert Salt Marsh declined, the wetland was better able to attenuate FIB loads and coastal water quality improved.

From Myers and Ambrose (2015).

\*Use “**et al.**” (abbreviation of Latin phrase *et alia* = “and others”) after last name of first author

## Rules for citing sources (cont.)

- i. Use author-date method of citation:
  - If the ***author is NOT the subject*** of the sentence, enclose author's last name & year in parentheses (*usually* at end of sentence)

### **Example 1 (*one source*):**

when salinity was raised from 6‰ to 26‰. Presumably this intolerance to seawater in young tidewater gobies is related to the isolated nature of their lagoonal habitats during the summer peak reproductive months (Swenson 1999). Thus, dispersal appears limited

From Spies et al. (2014).

**\*Do NOT include a comma** after author's last name



## Rules for citing sources (cont.)

- i. Use author-date method of citation:
  - If the ***author is NOT the subject*** of the sentence, enclose author's last name & year in parentheses (*usually* at end of sentence)

### **Example 2 (*more than one source*):**

As a comparison, in areas where swim-with-the-dolphin programs are allowed, this type of encounter typically was 35-60 minutes in duration (Constantine and Baker 1996; Samuels et al. 2003).

From Fandel et al. (2015).

- \*List sources in ***chronological*** order and use ***semi-colon*** to separate sources

## Rules for citing sources (cont.)

- i. Use author-date method of citation:
  - If the ***author is NOT the subject*** of the sentence, enclose author's last name & year in parentheses (*usually* at end of sentence)

### Example 3 ( $\geq 2$ sources with *same publication year*):

radiocarbon dating has since been applied successfully to the otoliths of many species of teleost fishes, some of which are deep-water species with larval or juvenile phases in the mixed-layer, to validate estimated age (e.g. Andrews et al. 2007; Ewing et al. 2007; Neilson and Campana 2008). Of paramount importance for a successful application of

From Allen and Andrews (2012).

\*List sources with same year in ***alphabetical*** order

## Rules for citing sources (cont.)

- i. Use author-date method of citation:
  - If the ***author is NOT the subject*** of the sentence, enclose author's last name & year in parentheses (*usually* at end of sentence)

### Example 4

**(≥2 more sources *with same author(s) AND year*):**

Dispersal of the Tidewater Goby is associated with high streamflow events (Lafferty et al. 1999<sup>a,b</sup>), which cause breaching of the estuary mouth, permitting dispersal (Earl et al. 2010). Breaching events occur most frequently during winter months when

From Spies et al. (2014).

\*Use “a,b,c...” designations after year. Do **NOT** add a **space** between year and “a,b,c...” designations

# Rules for Literature Cited

- Include ***alphabetical list*** (by first author's last name) of ***all references cited*** in the body of the paper
  - i. Use ***correct citation style*** for the type of source

## Example: Journal article

Author(s)



Title of article



Name of  
journal



Page  
numbers\*



Chace, J.F., and Walsh, J.J. 2006. Urban effects on native avifauna: a review. *Landsc. Urban Plan.*, 74:46-69.

From Nash (2021).

Year of Publication



Volume number



\*Use either an en dash "–" or a hyphen "-" to connect page ranges!

# Rules for Literature Cited (cont.)

- Include ***alphabetical list*** (by first author's last name) of ***all references cited*** in the body of the paper
  - i. Use ***correct citation style*** for the type of source

## Example: Book

Author(s)



Title of book



Publisher



Bentley, P.J. 1971. Endocrines and Osmoregulation. Springer Verlag.



Year of Publication

From Weick and Brattstrom (2020).

## Rules for Literature Cited (cont.)

- ii. For ***two or more cited works with the same author(s)***, use 2 consecutive em dashes instead of repeating author name(s)

Stevens, M. n.d. Plant guide: Pacific silverweed. Baton Rouge, Louisiana: USDA NRCS National Plant Data Center.

———. 1994. Plant guide: White sage. Baton Rouge, Louisiana: USDA NRCS National Plant Data Center.

From Barton et al. (2016).

Wall, M. 2009. General seed collection guidelines: For California native plant species. Rancho Santa Ana Botanic Garden. Accessed February 24, 2015. <http://www.rsabg.org/>.

———, and J. Macdonald. 2009. Processing seeds of California native plants for conservation, storage, and restoration. Claremont, California: Rancho Santa Ana Botanic Garden Seed Program.

From Barton et al. (2016).

## Rules for Literature Cited (cont.)

- iii. For ***two or more cited works with the same author(s) AND date***, maintain the “a, b, c...” style and use 2 consecutive em dashes instead of repeating author name(s)

Young, B. 2001<sup>a</sup>. Propagation protocol for production of container *Atriplex californica* moq. plants (treeband #5). San Francisco, California: Native Plant Network.

———. 2001<sup>b</sup>. Propagation protocol for production of container *Croton californicus* muell.-arg. plants (2 inch pot). San Francisco, California: Native Plant Network.

From Barton et al. (2016).

Baskin, C. C., and J. M. Baskin. 2002<sup>a</sup>. Propagation protocol for production of container *Achillea millefolium* L. plants. University of Kentucky, Lexington, Kentucky: Native Plant Network.

——— and ———. 2002<sup>b</sup>. Propagation protocol for production of container *Distichlis spicata* (L.) Stricta Plants. University of Kentucky, Lexington, Kentucky: Native Plant Network.

From Barton et al. (2016).

## Rules for Literature Cited (cont.)

- Include ***alphabetical list*** (by first author's last name) of ***all references cited*** in the body of the paper

**NOTE:** Some articles in the *Bulletin of the SCAS* do not include a space between the author's initials, while others include a space

Hedrick, P.W. 2005. A standardized genetic differentiation measure. *Evol.* 59:1633–1638.

From Franklin et al. (2016).

Merritt, D. J., and K. W. Dixon. 2011. Restoration seed banks. *Science*, 332:21–22.

From Barton et al. (2016).

Both styles are valid, but ***use only 1 style throughout your paper to be consistent!***



# Rules for Literature Cited (cont.)

## iv. Avoid making these errors...

Do **NOT** use **full journal title!** **Incorrect!**

Pirotta, E., Merchant, N.D., Thompson, P.M., Barton, T.R., and Lusseau, D. 2015. Quantifying the effect of boat disturbance on bottlenose dolphin foraging activity. **Biological Conservation**, 181:82–89.

Reif, J.S. 2011. Animal sentinels for environmental and public health. *Public Health Reports*, 126(Suppl 1):50.

Rosbach, K.A. and Herzing, D.L. 1999. Inshore and offshore bottlenose dolphin (*Tursiops truncatus*) communities distinguished by association patterns near Grand Bahama Island, Bahamas. **Can. J. Zool.** 77:581–92.

**Abbreviated title...correct!**

From Fandel et al. (2015).

**Exception:** a journal name consisting of *one word* must not be abbreviated. For example...

Lance, J.R. 1966. New distributional records of some northeastern Pacific Opisthobranchiata (Mollusca: Gastropoda) with descriptions of two new species. **Veliger**, 9:69–81.

McDonald, G.R. 1983. A review of the nudibranchs of the California coast. **Malacologia**, 24:114–276.

From Goddard et al. (2016).

## Rules for Literature Cited (cont.)

iii. Avoid making these errors...

Including the journal **issue number** is **NOT** required!

*If you include it*, then make sure to *include it for ALL journal articles listed.*

**CONSISTENCY is important!**

Allen, L.G., and A.H. Andrews. 2012. Bomb radiocarbon dating and estimated longevity of giant sea bass (*Stereolepis gigas*). Bull. So. Calif. Acad. Sci., 111(1):1–14. ← **Included**

Anderson, M.J. 2001. A new method for non-parametric multivariate analysis of variance. Austral. Ecol., 26:32–46. ← **Not included (ugh!)**

From House et al. (2016).

## Rules for Literature Cited (cont.)

iii. Avoid making these errors...

In the article title, use ***initial capital letters only*** in the first word of the title, as well as for proper nouns and genus names!

Millen, S.V.1983. Range extensions of opisthobranchs in the northeastern Pacific. *Veliger*, 25:383–386.  
——— and A. Hermosillo. 2007. The Genus *Flabellina* Voight, 1834 (Mollusca: Opisthobranchia) from Bahía de Banderas (Pacific Coast of Mexico) with Ecological Observations, the Description of a New Species, and the Redescription of *Flabellina cynara*. *Proc. Calif. Acad. Sci.*, 85:543–559.

From Goddard et al. (2016).

○ = letter should be lower case.

**CONSISTENCY is important!**