HOW TO: DEVELOP AND DELIVER A POSTER PRESENTATION

Shokufeh Ramirez, MPH
Tulane Center of Excellence in Maternal & Child Health
October 5, 2017
Why do we present?

- Get our ideas into the world
- Network and get feedback
- Share what works (or doesn’t)
- Contribute to body of evidence
- Practice communication
- Funding opportunities
- (Meet a department requirement)
Poster + You = Poster Presentation
Poster
# Abstract formats

<table>
<thead>
<tr>
<th>Structured/Traditional</th>
<th>Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Background</td>
<td>- Issues</td>
</tr>
<tr>
<td>- Methods</td>
<td>- Description</td>
</tr>
<tr>
<td>- Results</td>
<td>- Lessons learned</td>
</tr>
<tr>
<td>- Conclusions</td>
<td>- Recommendations</td>
</tr>
</tbody>
</table>
GCHB Practicum Poster Content

• Project Title
• Agency/Program Description
• Learning Objectives
• Description of Activities and Outcome
• Student’s Lessons Learned
• Graphics and additional information (optional)
What is your message?

• Before you start laying things out on the page, think about what message you want people to take away from your poster.
• Sum up the point of your poster in a sentence or two, and then use that to guide you through the rest of the process.
• Not everything has to be on the poster. That’s why you stand with it.
How can you support the guiding message of your poster?

• **Title**: What is a simple and intriguing way to say what your project is about?
• **Intro/background/Issues**: What basic things will the visitor need to know to understand your project? What’s your motivation for doing it? Give some context.
• **Materials and methods/Description**: How was your project set up? What work did you do? Are there any visuals/photos that can help the visitor better understand or be more interested?
• **Results/Lessons learned**: What happened? What additional information was gained? What life lesson was learned? What figures and tables can help depict that? (Make sure to include captions, so the visitor can understand the depiction.)
• **Discussion**: What do your results mean?

• **Conclusions and significance/Recommendations**: What conclusions did you reach, based on your results? What is the significance of them? What might be future research in this area? What do you recommend be the next steps, based on what you learned?

• **Other important stuff**: What literature did you cite? Who would you like to acknowledge for their help and/or funding?
How to emphasize your message

• Design for three audiences.
• Layout in column format.
• Use headers and fonts (without getting crazy) to guide visitors.
  – How is it organized?
  – What is important?
• Differentiate data, summaries and conclusions.
• Keep it simple.
• Use the graphics when you talk.
**Design for three audiences**

<table>
<thead>
<tr>
<th>Rabid competitors</th>
<th>Workers outside your area</th>
<th>Workers in your general area</th>
</tr>
</thead>
<tbody>
<tr>
<td>not your main audience</td>
<td>are a “bonus” audience</td>
<td>are your main audience</td>
</tr>
<tr>
<td>will come regardless of how well or how badly you present your work.</td>
<td>They can be attracted by an accessible message.</td>
<td>They can be attracted to an accessible presentation.</td>
</tr>
<tr>
<td>do not require special efforts to attract.</td>
<td>They can provide valuable insights and links to distant fields.</td>
<td>They will know your general area and can provide valuable suggestions.</td>
</tr>
<tr>
<td>are therefore not your main audience.</td>
<td>They require you to explain the problem and the solution.</td>
<td>They require that you supply context for your work.</td>
</tr>
</tbody>
</table>
What to include
(not all will apply for every poster)

- Title
- Authors’ names
- Institution(s)
- Abstract
- Introduction / Background
- Significance / Context
- Methods
- Results
- Lessons learned
- Recommendations
- Conclusions and significance
- Literature cited
- Acknowledgments
- Direction to further information
- Photographs
- Figures/Tables
- Quotes
- Logos
Poster = Aid

Practice using your poster as an aid to:

• identify the big problem,
• explain why it is important, and
• tell what you did to answer it.

You should:

• Know your figures and graphics
• Make eye contact
You
Practice

- A 1-sentence summary that succinctly answers the question, “What’s your poster about?”
- A 2-minute synopsis of your work
- A 5-minute talk
- Potential questions, including those asked mid-presentation
Your presentation

• Personal appearance
• Handouts
• Cards
• Demeanor
Nitty Gritty Details
Where to Print

• City Blueprint & Supply Company - [http://www.cityblueprint.com/](http://www.cityblueprint.com/)
• APHA service - [www.research-posters.com/apha/](http://www.research-posters.com/apha/)
• FedEx Office or other similar store, including the one on the Uptown Campus

• For the GCHB poster session, an option is printing onto multiple pieces of paper and *neatly* taping them together into a larger sheet.
Size

- You will be creating a single large slide in PowerPoint.
- The boards at APHA are 6 feet wide by 4 feet tall. However, before you set your slide dimensions to 72 by 48 inches, check with the printer regarding the size of the paper available.
  - If planning to have handouts on 11 by 8.5 inch size paper, may want to adopt that scale and size the poster to 60.5” x 46.75” (or smaller, depending on printer specifications)
- The GCHB practicum poster should be 40 by 28 inches
Construction

• Before adding any content to your slide, go to Design: Slide Size and change the height and width

• Once you have the proper size, you may begin adding content to your poster. You may do this by inserting textboxes, images, graphs, etc

• If you change the page size after you already have content, you will distort all of the objects on the page
Visual tips

• Posters with 800 words or less are ideal
• Use your white space
• Left justification is easier to read than full justification
• Photographs should have a thin gray or black border to make them more visually appealing
Margins and Grid

• It is essential to leave at least a **1 inch margin** around the edges of the poster
• Use gridlines to make sure that everything is appropriately aligned
  • **View: Ruler, Gridlines, Guides**
Background

- It is essential that the background of your slide uses light colors.
- To use a different color background from the default white, then *Format Background*
- White is the center of the wheel. The best colors to use are the ones immediately around the white center. If you stray too far away from the center (i.e. more than two shades), your background will be too dark to print.
More visual tips

- Avoid titles with colons
- Format the title in “sentence case”
- Use a non-serif font for title and headings and a serif font for body text
- Larger font size and bolding are sufficient for indicating section headers
- Italics are preferable to underlining
Fonts – Titles and Headers

- Title: font size 72-120 points (or >1 inch high)
- Subtitles (authors' names, school name, etc.): font size 48-80 points
- Section headers (Abstract, Introduction, Results, etc.): font size 36-72 points, or ~ 50% larger than the body text

Consider using a large, bold san-serif font, such as
- Arial Black
- Franklin Gothic Heavy
- Tahoma (bolded)
- Trebuchet (bolded)
- Verdana (bolded)
- Calibri (bolded)
Fonts

- Body text: font size 24-48 points.
- Make sure that the body text is the same font throughout the entire poster.
- Familiar fonts are easier for your audience to read and for other computers to print.
- DON'T USE ALL CAPS for any portion of your poster. It is hard to read and it looks like you are shouting.
- For reference, a 100 point font is about an inch high.

Choose a serif type that is very readable, like
- Times New Roman
- Garamond*
- Book Antiqua
- Bookman Old Style
- Century Schoolbook

*Garamond italics are difficult to read.
Graphics

- Use visuals to enhance your message

- Numerical data → Graphs

- Quotes from focus groups →

- Photographs should have a thin gray or black border to make them more visually appealing

- All graphs, tables, figures, maps, and photographs should be labeled, such that it can stand alone
**Southern Flounder Exhibit Temperature-Dependent Sex Determination**

J. Adam Luckenbach, John Godwin and Russell Borski

Department of Zoology, Box 7617, North Carolina State University, Raleigh, NC 27695

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### Introduction

Southern flounder (*Paralichthys dentatus*) support valuable fisheries and show great promise for aquaculture. Female flounders are known to grow faster and reach much larger adult sizes than males. Therefore, information on sex determination that might increase the ratio of female flounders is important for aquaculture.

### Objective

This study was conducted to determine whether southern flounder exhibit temperature-dependent sex determination (TSD), and if growth is affected by rearing temperature.

### Methods

- Southern flounder broodstock were strip spawned to collect eggs and sperm for in vitro fertilization.
- Hatched larvae were reared in a natural saltwater (28ppt) to high protein pelleted feed and fed twice daily.
- Upon reaching a mean total length of 40 mm, the juvenile flounders were stocked at equal densities into one of three temperatures 18, 23, or 28°C (for 245 days).
- Gonads were preserved and later sectioned at 2-μm sections.
- Sex-distinguishing markers were used to distinguish male (spawninggonads) from females (nonspawning).

### Histological Analysis

- Male Differentiation
- Female Differentiation

### Temperature Affects Sex Determination

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>% Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>30±2</td>
</tr>
<tr>
<td>23</td>
<td>55±3</td>
</tr>
<tr>
<td>28</td>
<td>70±5</td>
</tr>
</tbody>
</table>

(*p < 0.01 and ***p < 0.001 represent significant deviation from a 1:1 male:female sex ratio)*

### Growth Does Not Differ by Sex

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Male (g)</th>
<th>Female (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>12±1</td>
<td>10±1</td>
</tr>
<tr>
<td>23</td>
<td>15±2</td>
<td>13±2</td>
</tr>
<tr>
<td>28</td>
<td>18±3</td>
<td>16±3</td>
</tr>
</tbody>
</table>

### Results

- Sex was discernible in most fish greater than 120 mm long.
- High (28°C) temperature produced 45% females.
- Low (18°C) temperature produced 22% females.
- Mid-range (23°C) temperature produced 44% females.
- Fish raised at high or low temperatures showed reduced growth compared to those at the mid-range temperature.
- Up to 245 days, no differences in growth existed between sexes.

### Conclusions

- These findings indicate that sex determination in southern flounder is temperature-sensitive and temperature has a profound effect on growth.
- A mid-range rearing temperature (23°C) appears to maximize the number of females and promote better growth in young southern flounder.
- Although adult females are known to grow larger than males, no difference in growth between sexes occurred in age-4 (≤ 1 year) southern flounder.

### Acknowledgements

The authors acknowledge the Submersible Ecosystem Program of the National Marine Fisheries Service and the University of North Carolina Sea Grant College Program for funding this research. Special thanks to Larry W. and B. M. Grizzle for help with the work.
Positive Points

- The title conveys the main message instantly
- Context and objectives are made clear
- Methods are concise
- Graphs are interpreted by their titles.
- Results and conclusions are concise and relate back to objectives
- Color scheme is very simple and pleasing
- Font is large enough everywhere, including figures

Negative Points

- Results and conclusions do not relate back to context (Introduction)
- Title could be more direct: "Temperature Determines Sex of Southern Flounder"
- Title font could be larger
- Some viewers have felt there is too much white space between the columns. It could be reduced somewhat, but not too much
Can Suburban Greenways Provide High Quality Bird Habitat?

George R. Hess :: NC State University :: Department of Forestry & Environmental Resources :: Raleigh NC 27695-8002 USA :: george_hess@ncsu.edu
Christopher E. Moorman, Jamie H. Mason, Kristen E. Sinclair, Salina K. Kohut :: NC State University :: Department of Forestry & Environmental Resources
www4.ncsu.edu/~grhess/GreenwaysForWildlife

**Objective: Greenways for the Birds**
- Determine how development-sensitive forest birds are affected by
  - forested corridor width
  - adjacent development intensity
  - vegetation composition & structure
- Develop recommendations for greenway designers and planners

**Study Design & Independent Variables**
- Sampled 34 - 300m corridors in Raleigh & Cary, NC, USA
- Sampled range of
  - forested corridor widths (20 - 1,200m)
  - adjacent density (low density residential – office/commercial)
- Additional measures
  - Vegetation composition & structure in corridor
  - Land cover in 300m x 300m adjacent to corridor (context)
- Measured richness & abundance of
  - breeding birds
  - Neotropical migrant birds during stopovers
  - Mammal nest predators

**Breeding Birds of Concern More Common in Wider Greenways with Less Managed Area Surrounded by More Forest Canopy**
- 36-week, 15m point counts at center of corridor
- Revisits 4 times during breeding season

**Nest Predators Less Common in Wider Greenways with Narrower Paths**
- Five baited scent stations along each greenway segment
- Observed for 5 nights each

**Spring Neotropical Migrant Stopovers More Common in Wider Greenways with More, Taller Hardwood Trees**
- 200m x 25m transects along one side of greenway path
- Revisited sites for two spring seasons and one fall season
- Width not significant, but trend consistent with other findings

**Potential Solution: Wide Corridor, Trail Near Edge**
- Make corridors at least 50m wide; wider is better
- Don’t split forested corridor
- Keep trails as narrow as possible
- Avoid wide grassy areas along trails within forested corridor
- Locate trails near the edge of forested corridors
Positive Points
- The title asks an interesting question
- The headings provide a brief description of the poster
- Methods are concise
- The poster is quite visual - nice images
- Results and conclusions are concise and relate back to objectives
- Color scheme is very simple and pleasing
- Font is generally large enough (too small in figures)

Negative Points
- Poster appears crowded, lacking white space
- Heading blocks:
  - were not helpful in providing direction about what was in each section
  - some are too long
  - were not helpful in directing the viewer where to read for what information
- The graphs - especially the four scatter plots - are too small and have fonts that are too small
Positive Points

- Nice, attention-grabbing graphic (the lion)
- Large title
- Font is easy to ready, even in figures
- Headings everyone will understand - clear organization
- Author identified with complete contact information (lower left corner)

Negative Points

- Text heavy and unbalanced
- Hard to read text over lion graphic
- Poster title and titles on graphics not very informative
- Could have put the pertinent text near each graph
- "Lessons Learned" section might give perspective
- What is the graphic in the lower right?
- Author's name should have appeared more prominently under the title
Title that hints at the underlying issue or question

Your name(s) here
Your address(es) here

Introduction

This template has column widths and font sizes optimized for printing a 30 x 36 poster—just replace the "tips" and "Meh, Blah, Blah" input mock with actual content, if you have it. To keep your total word count under 700 (really). More tips can be found at "Designing conference posters" at http://colinpurrington.com/tips/academic/posterdessign

To see examples of how others have used this template to fit their presentation needs, perform a Google search for "𝑟𝑒𝑣𝑒𝑟𝑛𝑒𝑡 𝑝𝑜𝑠𝑡𝑒𝑟 𝑡𝑒𝑚𝑝𝑙𝑎𝑡𝑒 s". Your main text is easier to read if you use a "serif" font such as Times or New York (e.g., people have done experiments and found this to be the case). Use a "sans serif" font for your title and section headings.

Materials and methods

Briefer, and opt for photographs or drawings whenever possible to illustrate key ideas, protocol, or experimental design. Figures don't want to stand out in the scene details, however fascinating you might find them. It's Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Blah, Bla
http://colinpurrington.com/tips/academic/posterdesign (September 2011)

Title that hints at the underlying issue or question and is formatted in “sentence case”

Your name(s) here

Department of Biology, Swarthmore College, Swarthmore, Pennsylvania 19081

Introduction

This is a Microsoft PowerPoint template that has column widths and font sizes optimized for printing a 9 by 5" poster—just replace the “tips” and “blah, blah, blah” startup text with actual content if you have it. Try to keep your text word count under 700 words (this suggestion applies to everyone, even you). More tips can be found at the companion site, “Advice on designing scientific posters,” at the Swarthmore College Biology Department web site.

This paragraph has “justified” margins, but he aware that simple left-justification (either paragraph) is infinitely better if your text doesn’t “space” evenly when fully justified. Also, if you are manually inserting logos into your text, be sure to set the horizontal alignment in your template. Your text must be centered in your columns. Although your columns are aligned with each other, your columns should, then “Align” with the proper tool (i.e., people have done this often). Make sure the edges of your columns are aligned with the proper tool (i.e., people have done this often). Then “Align” with the proper tool (i.e., people have done this often).

You can, of course, start your conclusions in column #3 if your results section is “data light.” Conclusions should not be mere reminders of your results. Instead, you want to guide the reader through what you have made a good case for why this experiment was worthwhile. This is a Microsoft Powerpoint template that has column widths and font sizes optimized for printing a 9 by 5" poster—just replace the “tips” and “blah, blah, blah” startup text with actual content if you have it. Try to keep your text word count under 700 words (this suggestion applies to everyone, even you). More tips can be found at the companion site, “Advice on designing scientific posters,” at the Swarthmore College Biology Department web site.

Your main text is easier to read if you use a “serif” font (i.e., people have done this often). The sentence of the first paragraph has “justified” margins, but be aware that simple left-justification (either paragraph) is infinitely better if your text doesn’t “space” evenly when fully justified. Also, if you are manually inserting logos into your text, set the horizontal alignment. Your text must be centered in your columns. Although your columns are aligned with each other, your columns should, then “Align” with the proper tool (i.e., people have done this often).

Materials and methods

Be brief, and opt for photographs or drawings whenever possible to illustrate your entire protocol or experimental design. We’ll be focusing on the photographs and drawings we’re using, even though our text here isn’t very technical.

Figure 1. Photograph of mounting large organism, showing sketch of organism, and coordinate plane (please don’t use this protocol). Figure 2. Diagram of mounting large organism, showing sketch of organism, and coordinate plane (please don’t use this protocol).

Results

The overall layout for this section can, and probably should be modified from this template, depending on the class and number of charts and photographs your specific experiment generated. You might want a single, large color scheme to accommodate a large map, or perhaps you could arrange 8 figures in a circle at the center of the poster. Whatever the layout is to make your results graphically clear. To see examples of how others have abused this template to fit various sections, see examples of how others have abused this template to fit.

Often you will have some more text-based results between your columns. This text should quickly guide the reader through the figures.


Acknowledgments

To find out more about the poster, please contact Dr. John Smith, Swarthmore College, Swarthmore, Pennsylvania 19081. For further information, please contact Dr. John Smith, Swarthmore College, Swarthmore, Pennsylvania 19081. For further information, please contact Dr. John Smith, Swarthmore College, Swarthmore, Pennsylvania 19081.
APHA specifics

- Poster Session presenters can upload their handouts prior to the Annual Meeting so that they will be a permanent part of the Online Program, visible to everyone. The handouts will be available by hyperlink from the Online Abstracts.
APHA poster session logistics

- Poster sessions consist of 10 poster boards numbered 1 through 10 (session numbers will be indicated at the end of each row of boards) and will be held in the Public Health Expo at the Convention Center.
- There will be approximately 28 poster sessions scheduled concurrently, so be sure to identify the correct row of boards for your session as well as the appropriate board number as indicated in the program before arranging your poster.
- To locate your assigned poster board, look for the 4-digit session number to which your abstract was assigned.
- The poster board will be 4 feet tall by 6 feet wide, mounted on stands.
- Thumbtacks will be available onsite for mounting the displays.
- A chair will be provided for each Poster Session presenter.
References and More resources

- abacus.bates.edu/~bpfohl/posters/
- www.soe.uoguelph.ca/webfiles/agalvez/poster/
  - www.soe.uoguelph.ca/webfiles/agalvez/poster/poster_making/entry.htm
  - www.soe.uoguelph.ca/webfiles/agalvez/poster/poster_making/good1_text.htm
- http://colinpurrington.com/tips/poster-design
  - http://colinpurrington.com/tips/poster-design/templates
- www.ncsu.edu/project/posters/
- http://libguides.tulane.edu/c.php?g=182626&p=1204653
- GCHB Practicum Poster Session handout
CEMCH Conference Series presents:

Getting the Most out of APHA

Tuesday, October 24, 2017
12:00 – 12:45 pm
Tidewater 12th floor

Networking Tips for Everybody – Expand your Contacts at APHA & Beyond

Wednesday, October 25, 2017
12:00 – 12:45 pm
Tidewater 12th floor
Tulane Center of Excellence in Maternal and Child Health
Shokufeh Ramirez, MPH
Assistant Director
sramirez@tulane.edu