

EFFECTIVE POSTER PRESENTATIONS

An Effective Poster is a Visual Communications Tool

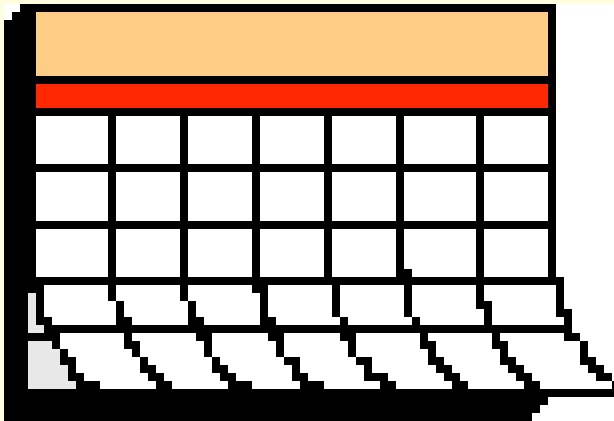
Focused Graphic Ordered

- Will help you engage colleagues in conversation
- Will get your main point across to as many people as possible
- Should be focused on a single message
- Lets graphs and images tell the story; uses text sparingly
- Keep the sequence well-order and obvious

Components of Poster

- A logical hypothesis or statement of the problem
- Clearly connect the hypothesis/problem to previous relevant literature.
- State the goal of the project clearly and concisely; show relevance beyond the project.
- Explain why particular methods were chosen; discuss controls and any statistical methods .
- Present results in a clear and logical fashion
- Give reasonable conclusions based on your results
- Compare your conclusions to your hypothesis/problem. Discuss their relevance in a wider context.

Planning

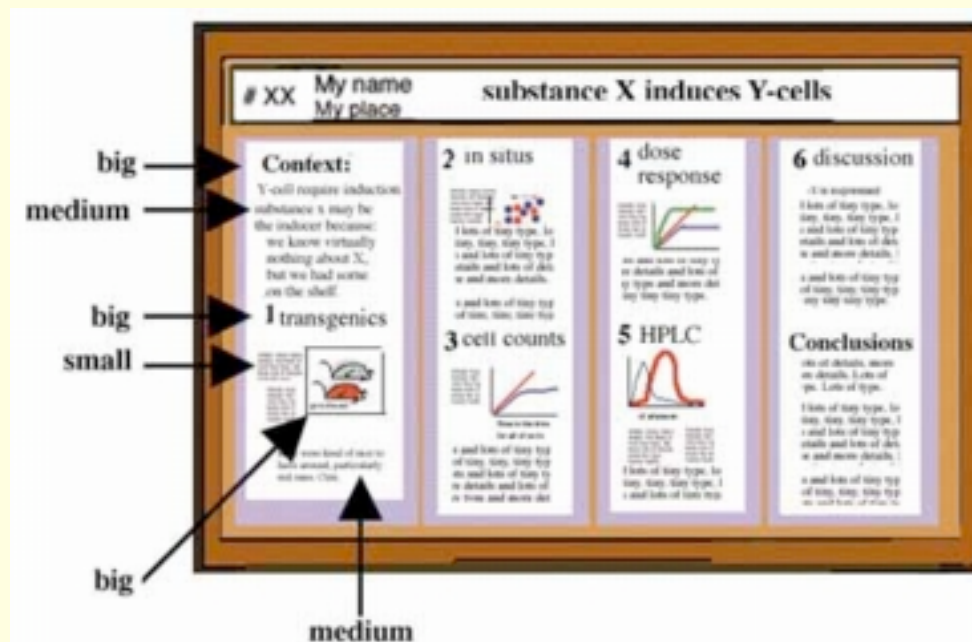


- How much room
- What can fit
- Layout
- Organization

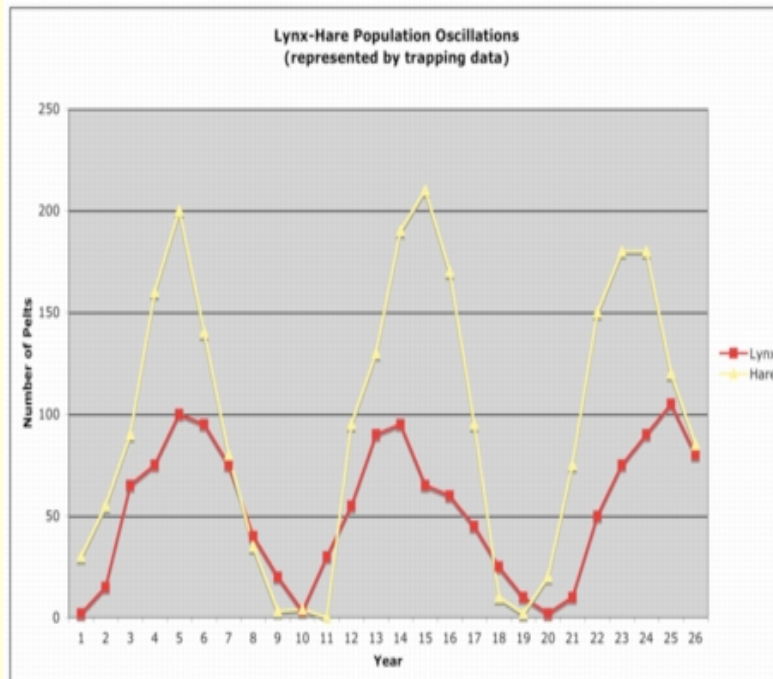
- Milestones
 - Very important for multi-authors
 - Start with due date and work back
 - Allow time for peer review and editing

Layout

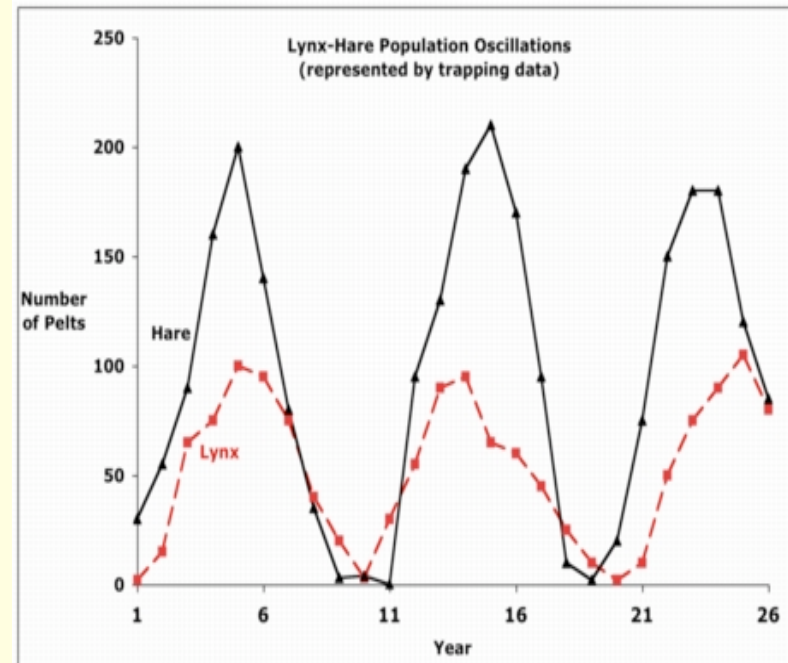
- Use a visual grammar to guide readers to the important parts
- Use a column format; makes the poster easier to read in crowds
- Use organization cues to guide readers through the poster
- Use “reader gravity”; pulls the eye from top to bottom and L to R
- Use headings intelligently to help find main points and key info
- Balance placement of text and graphics to create visual appeal
- Use white space creatively to help define flow of information



Graphics



• NO



YES

Use of Color

- Use a light color background and dark color letters for contrast
- Avoid dark backgrounds with light letters - tiring to read
- Stick to a theme of 2-3 colors
- Overly bright colors will attract attention and then wear out readers' eyes
- Consider people who have problems differentiating colors especially when designing graphics - common problem is inability to tell green from red

PRESENTATION AND QUESTIONS

- You must demonstrate a strong knowledge of the project.
- Speak clearly, naturally and with enthusiasm; make eye contact.
- Use a visual aid, like a laser pointer to enhance your presentation.
- Answer questions clearly and succinctly; admit when you don't know the answer to a question.
- Thank persons who take their time to read your poster and ask questions.



Southern Flounder Exhibit Temperature-Dependent Sex Determination

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Introduction

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

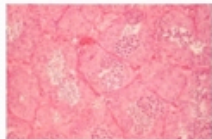
Objective

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

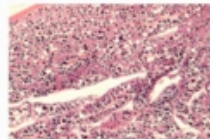
Methods

- Southern flounder broodstock were strip spawned to collect eggs and sperm for *in vitro* fertilization.
- Hatched larvae were weaned from a natural diet (rotifers/*Artemia*) to high protein pelleted feed and fed until satiation at least twice daily.
- Upon reaching a mean total length of 40 mm, the juvenile flounder 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 2-6 microns.
- Sex-distinguishing markers were used to distinguish males (spermatogenesis) from females (oogenesis).

Histological Analysis

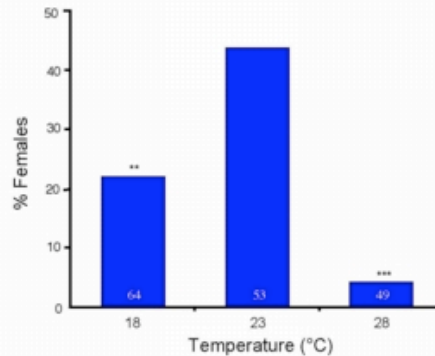


Male Differentiation



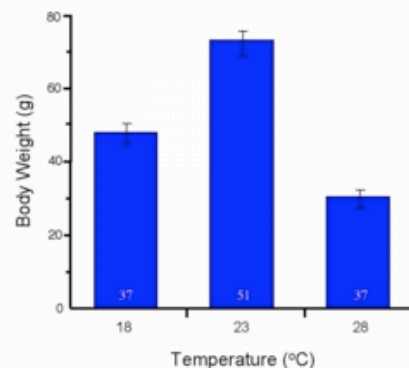
Female Differentiation

Temperature Affects Sex Determination

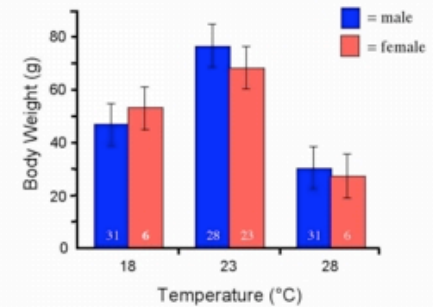


(**P < 0.01 and ***P < 0.001 represent significant deviations from a 1:1 male:female sex ratio)

Rearing Temperature Affects Growth



Growth Does Not Differ by Sex



Results

- Sex was discernible in most fish greater than 120 mm long.
- High (28°C) temperature produced 4% 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-0 (< 1 year) southern flounder.

Acknowledgements

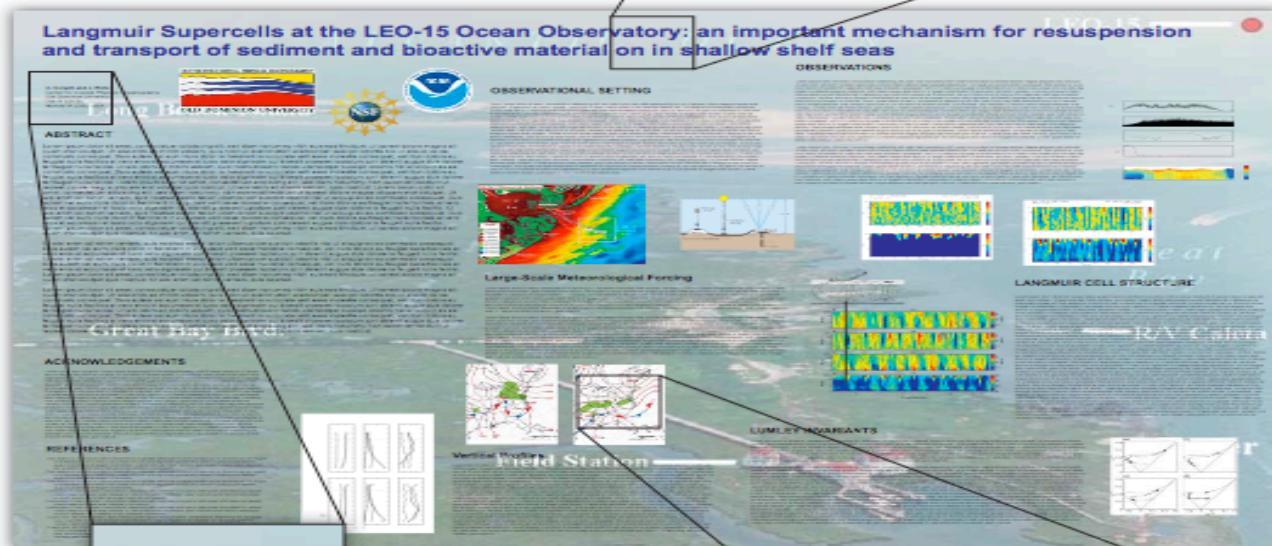
The authors acknowledge the Saltonstall-Kennedy Program of the National Marine Fisheries Service and the University of North Carolina Sea Grant College Program for funding this research. Special thanks to Lea Ware and Beth Shamps for help with the work.

EXAMPLE OF A "BAD" POSTER

This poster was designed to be 6 feet wide by 4 feet high. Unfortunately, there is simply too much content. The results are text and graphics set too small to be easily legible. The background photo makes it even harder to read. Unnecessary logos add to the visual confusion.

Langmuir Supercells at the LEO-15 Ocean Observatory: an important mechanism for resuspension and transport of sediment and bioactive material on in shallow shelf seas

- Poster title is too long
- Type is too small
- Was not carefully proof-read (see error in title)



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- Author names are too small
- First names should be given
- The full address is not necessary
- E-mail address should be given for contact info



- A poor-quality or low-resolution graphic makes the poster unprofessional



Can Suburban Greenways Provide High Quality Bird Habitat?

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 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



Birds of Conservation Concern in Decline

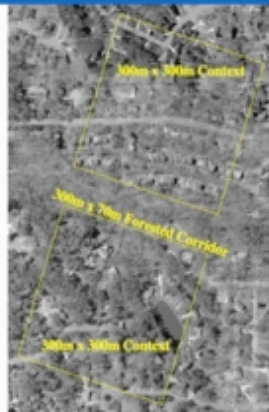
- Many bird species of conservation concern – including neotropical migrants, insectivores, and forest-interior specialists – decline with increasing human development
- Greenways might mitigate this effect
- Habitat patch size, vegetation composition & structure, and landscape context are key factors
- Standards are lacking for designing and managing suburban greenways as high quality habitat

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

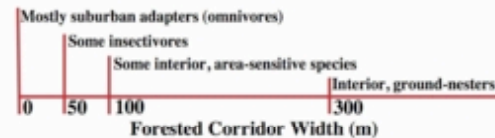
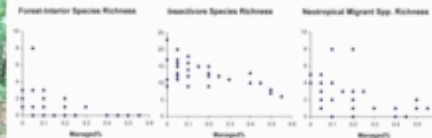
- Sampled 34 - 300m corridors in Raleigh & Cary, NC, USA
- Sampled range of
 - Forested corridor widths (20 - 1,200m)
 - Adjacent density (low density residential - office/commercial)
- Additional measures
 - Vegetation composition & structure in corridor
 - Land cover in 300m x 300m adjacent to corridor (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



- 8-minute, 50m point counts at center of corridor
- Revisited 4 times during breeding season

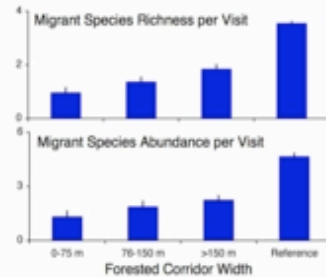


Significant Predictors for Breeder Abundance

- | | |
|------------------|----------------------------|
| Greenway: | Adjacent Landscape: |
| (-) Managed Area | (+) Canopy Cover |
| (+) Shrub Cover | (-) Building Density |
| | (-) Bare Earth |

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

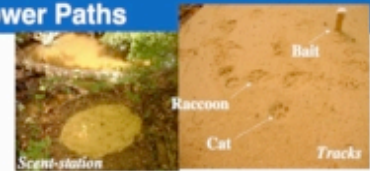


Significant Predictors for Spring Migrant Abundance

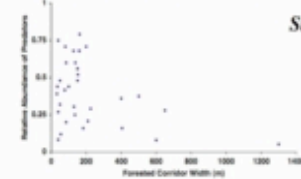
- | | |
|-------------------|----------------------------|
| Greenway: | Adjacent Landscape: |
| (+) % Hardwoods | (-) Bare Earth |
| (+) Canopy Height | |

Nest Predators Less Common in Wider Greenways with Narrower Paths

- Five baited scent stations along each greenway segment
- Observed for 5 nights each



Predator Abundance Decreased with Corridor Width



Significant Predictors for Predator Abundance

- | | |
|--------------------|----------------------------|
| Greenway: | Adjacent Landscape: |
| (-) Corridor width | (-) Building density |
| (+) Trail width | |
| (+) Mature forest | |
| (+) Ground cover | |
| (-) Vine cover | |

Greenways for Development-Sensitive Forest Birds Might Conflict with Intense Recreational Use

People & Managers Prefer ...



- Good for walking, running, cycling, strollers, wheelchairs
- Easier to maintain, especially with higher intensity use

Forest Birds Prefer ...



- Narrow path avoids splitting forested corridor
- Discourages heavy human use
- Fewer nest predators

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

Resources

- Printing your poster
 - James A. Booth, College of Science
 - Email: james.booth@marshall.edu
 - Phone: 696-2980
- Web Resources
 - www.ncsu.edu/project/posters/
 - www.projects.cs.dal.ca/DCSI/present.ppt