

Really helpful tips on giving seminar talks

14 October 2025

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Really helpful tips on giving seminar talks

Why all these presentations?

Communicate with the audience

Know your audience

Know your message

Communicate with the audience

Know your audience

Know your message

Aim to inform and instruct, not to impress

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You bring a *gift* to this audience

Tell us your story

Remember why you find this interesting and valuable,
and show your excitement about it.

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and show your excitement about it.

Being aware of the story you are telling
helps to keep your presentation
coherent, focused, easy to follow,
and more memorable.

Composing and organizing your talk

Build your talk on messages (not topics).

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IMRaD, or not

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IMRaD, or not

OCAR story structure
(Opening, Challenge, Action, Resolution)

Schimmel 2012, *Writing Science*
(book available through u:search)

Composing and organizing your talk

Mystery and suspense:
Try the question-answer
or problem-approach
format

Opening and Introduction

Breathe

Opening and Introduction

Open with a question or natural segue,
or memorize an opening statement

Take time to give enough background

Opening and Introduction

State the purpose or scientific question
early and clearly

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State the purpose or scientific question
early and clearly

e.g. start with the overarching motivating question,
then lead into your specific research problem

Maintain continuity, and interest

Lead into each section or topic

Problem-Solution units

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Lead into each section or topic
Problem-Solution units

Practice!

PowerPoint does not give talks.

Great for composing and for showing stuff

Use a non-distracting slide format

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Presenter View is useful

- helps you lead into your next slide

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Always do a pre-talk tech check

This font is Verdana 36pt.

Sans serif fonts like this
are preferable
to serif fonts like this (e.g. Times).

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ALL CAPS TEXT IS REALLY ANNOYING.

This font is Verdana 36pt.

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are preferable
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And use boldface type **sparingly**, or it loses its impact.

This is OpenDyslexic

...a font designed to be easier to read
for those with dyslexia.

(I am told that some serif fonts are especially difficult.)

Slides support and illustrate what you are saying

Try short, informative statements as headlines
to encourage engagement

Content supports or explains the headline statement

Matriarchy vs. Patriarchy:

Differences between bonobos and chimpanzees



bonobos	Chimpanzees
females dominant	males dominant
aggression and cooperation	agression
fightes not lethal	lethal fights
solve conflicts with sexual behaviour	solve conflicts through fights
no differences in testosterone-level	increased testosterone when females present



Slides support and illustrate what you are saying

Not too much text

But do include species names,
important terms, abbreviations, etc.

Make the last slide interesting to look at

Citations

Non-destructive imaging makes museum specimens shareable



Holotype (male)

Ommatoiulus avatar
new millipede species

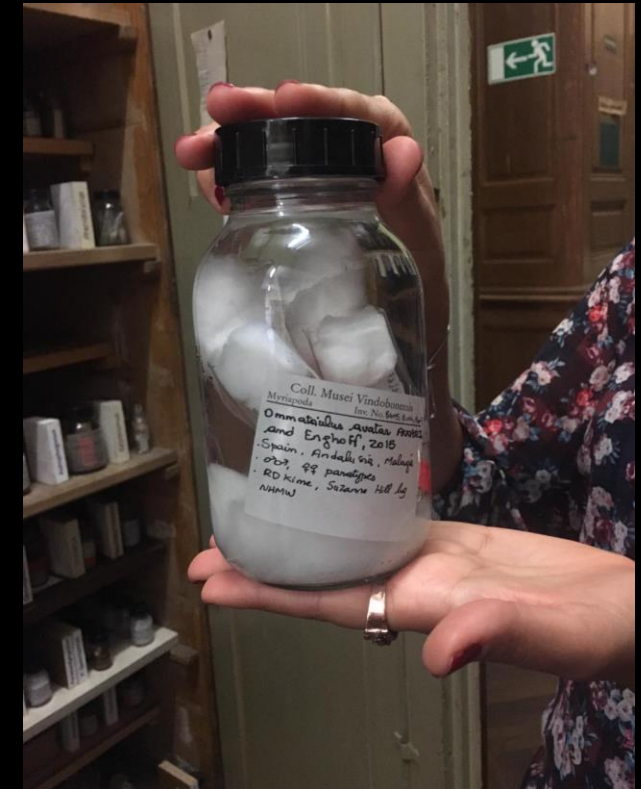
Destained, undamaged
type material is safe
in the NHM Vienna.

Cybertype images
are available on Dryad.com
(CC0 – public domain)

B



Female
paratype



A New Dimension in Documenting New Species: High-Detail Imaging for Myriapod Taxonomy and First 3D Cybertype of a New Millipede Species (Diplopoda, Julida, Julidae)

Nesrine Akkari , Henrik Enghoff, Brian D. Metscher

Published: August 26, 2015 • <https://doi.org/10.1371/journal.pone.0135243>

Make your visuals count

Don't show everything: simple, clear, and big

For more complex slides, use sequential builds

Make your visuals count

Don't show everything: simple, clear, and big

Highlight the important features in a graph or figure

Make figure labels clear and informative

Make your visuals count

Don't show everything: simple, clear, and big

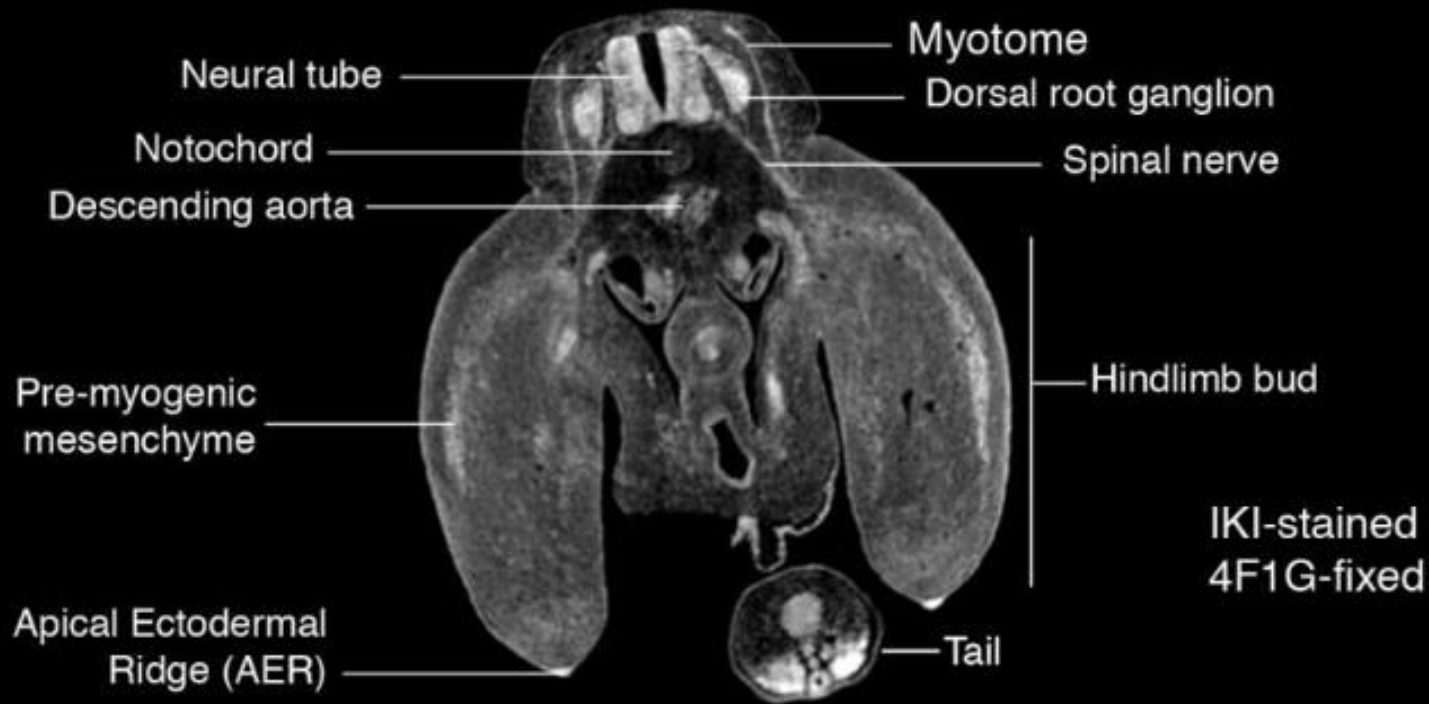
Highlight the important features in a graph or figure

Make figure labels clear and informative

Tell us what we should see

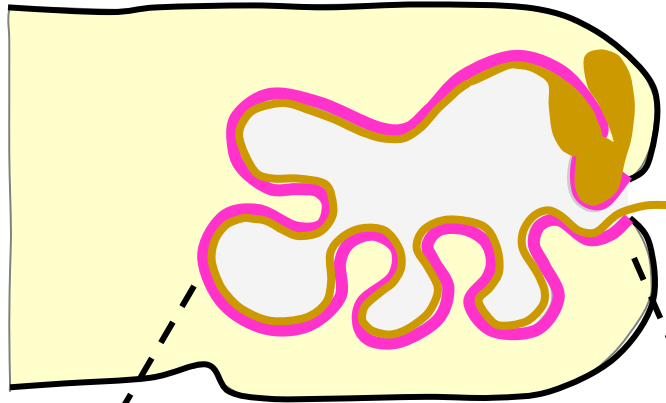
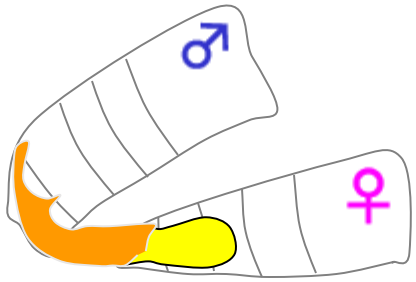
Color always means something

Iodine-contrasted microCT gives detailed 3D views of intact embryos

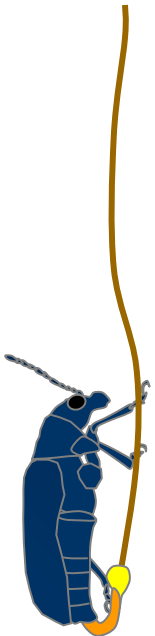
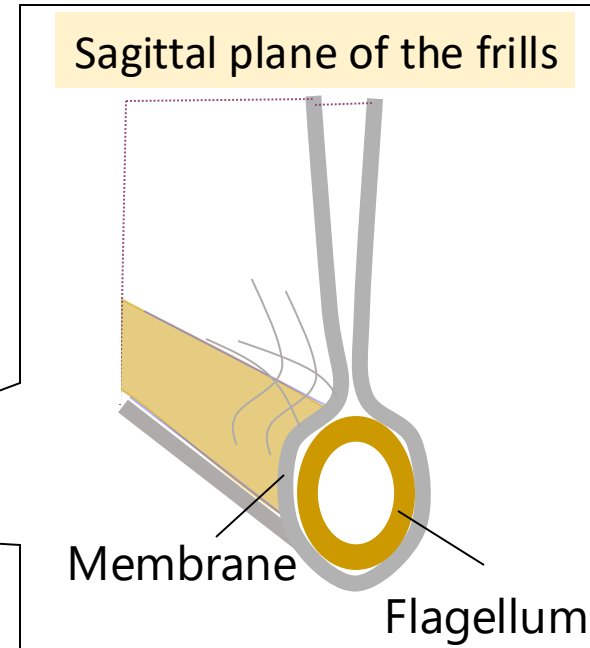


Chick embryo
St. 24,
PTA stain

How do they use it?



The membrane is invaginated, which forms a storage space for the flagellum.



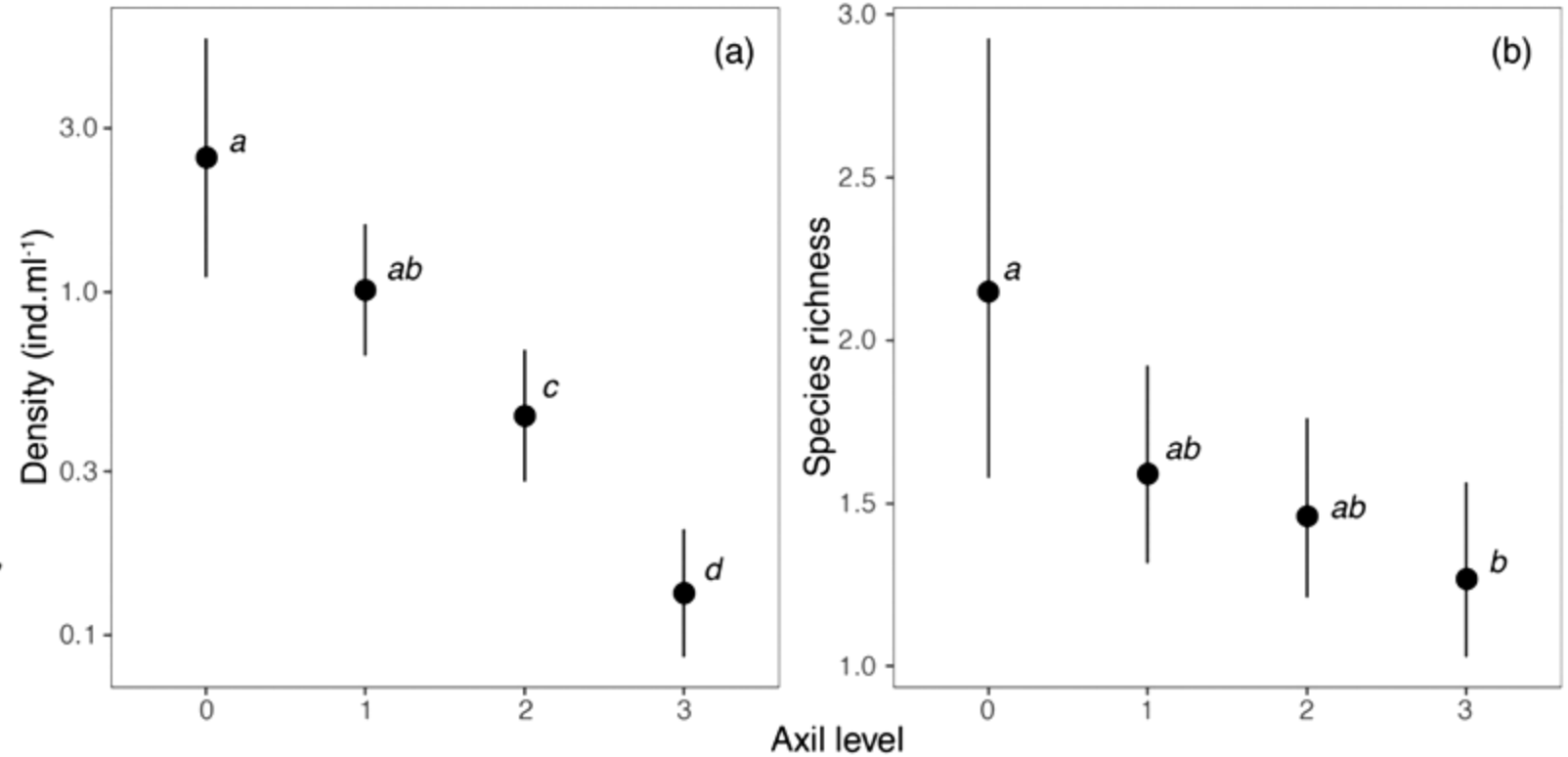
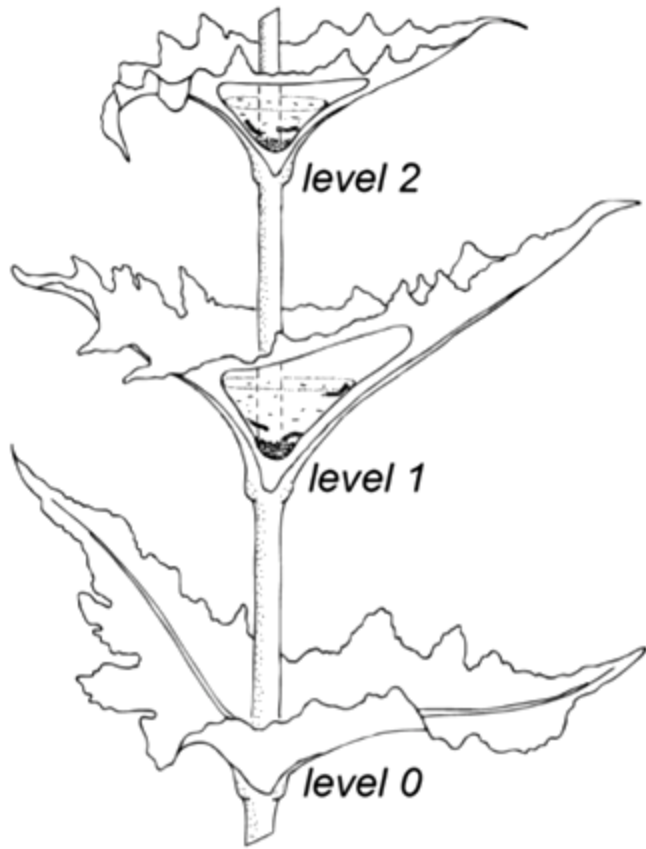
How to show your data?

Don't show everything: simple, clear, and big

Highlight the important features in a graph or figure

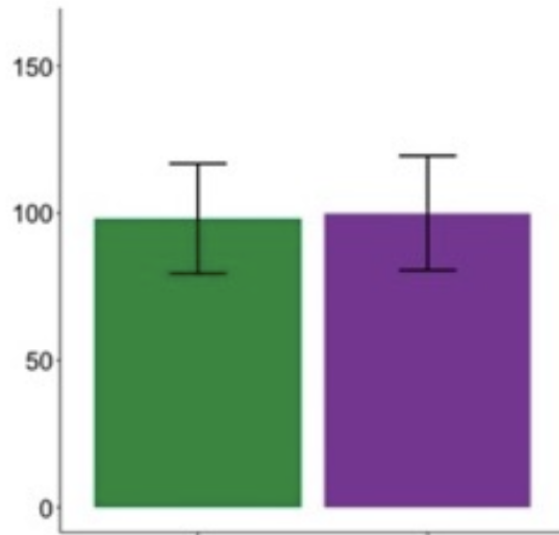
Make labels clear and informative

The species composition depends on the level of the leaf axil

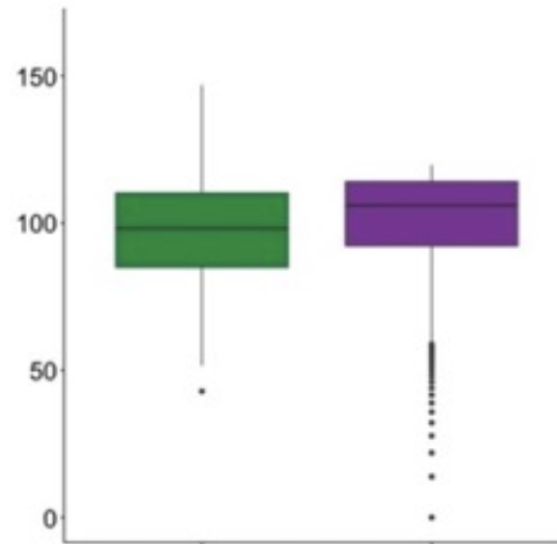


Friends don't let friends make bar plots.

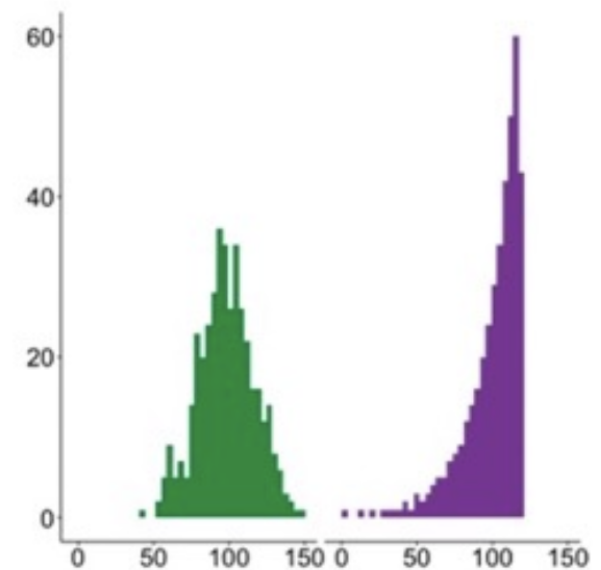
These look the same!



Wait a minute...

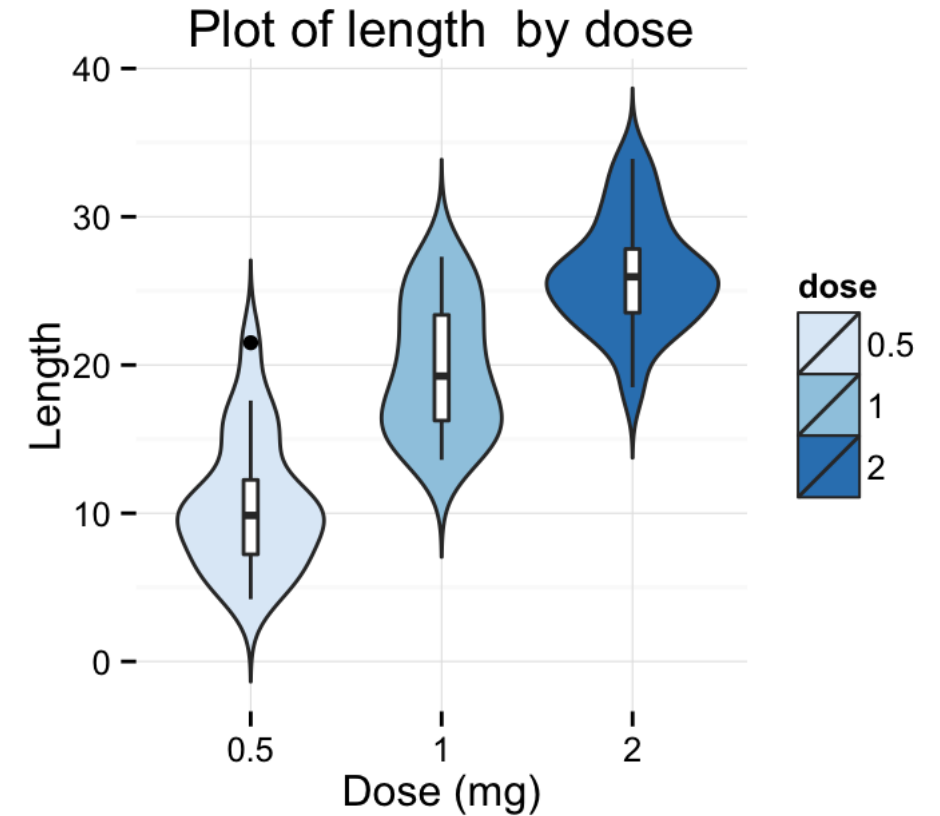
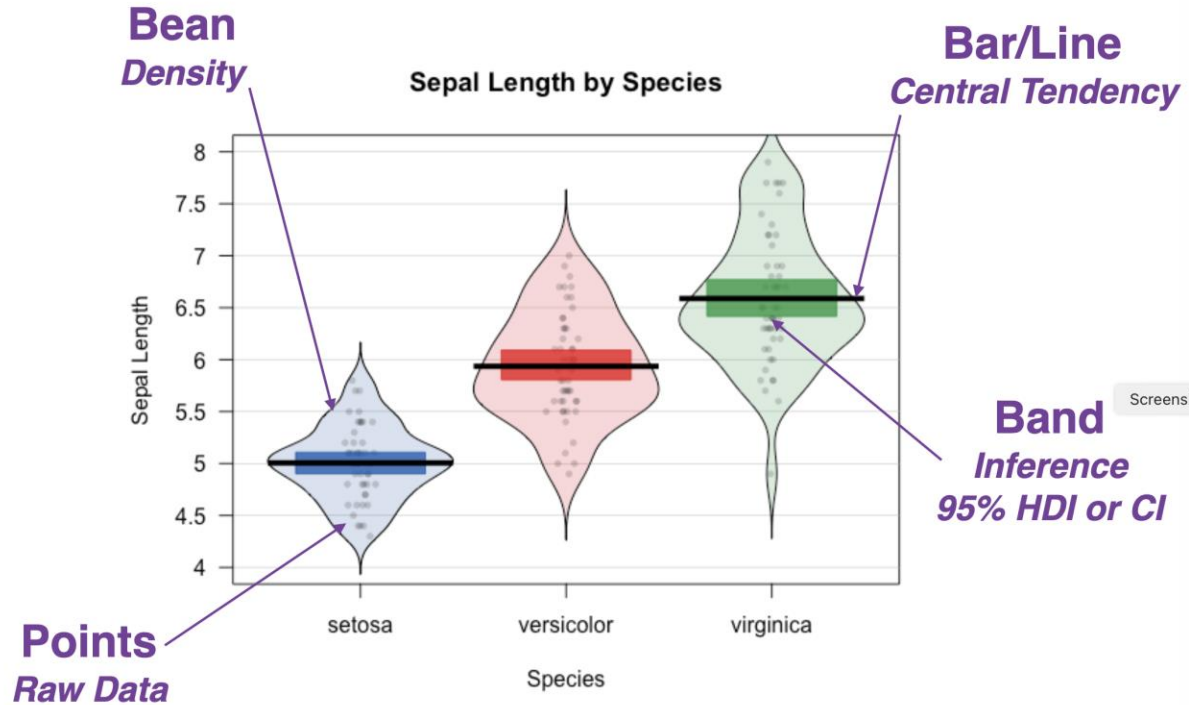


Oooh!



<https://www.kickstarter.com/projects/1474588473/barbarplots>

When possible, show data and statistics



pirateplot() tool in R.

Violin plots

How to show your data?

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Make labels clear and informative

Convey your message

Speak like you mean to be
heard and understood

Speak slowly and deliberately

Talk to the persons in the audience

Speak like you mean to be
heard and understood

Speak slowly and deliberately

Talk to the persons in the audience

Breathe

Science is all about questions

so take questions from the audience
as points for scientific discussion

Leave a take-home message

- State the purpose or scientific question early and clearly
- Communicate your story to the audience
- Use your slides to help
- Practice explaining your work
- Build your talk on messages (not just topics).
- Support these messages with visual evidence.

