MATLAB

Pretty your figures

Show your data to best advantage

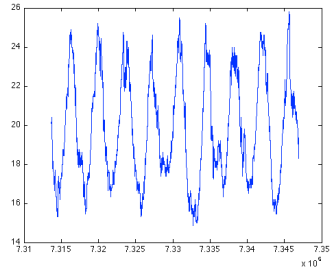
Figures are one of the major way we show scientific results. Plots of the data, time series, maps, scatter plots, profiles, sections are all ways of delivering information.

Simple choices that you make while designing your figures can enhance your ability to make a point to the reader/ viewer.

Check your aesthetic

Which is better? A or B?

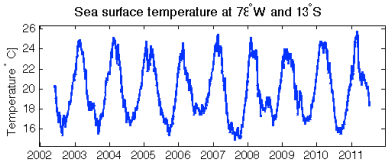
A



Check your aesthetic

Which is better? A or B?

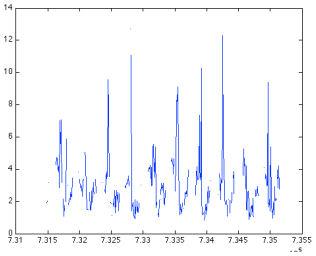
B



Check your aesthetic

Which is better? C or D?

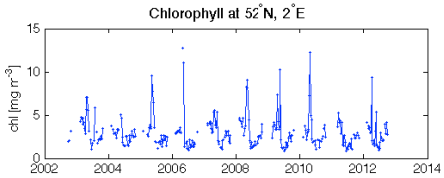
C



Check your aesthetic

Which is better? C or D?

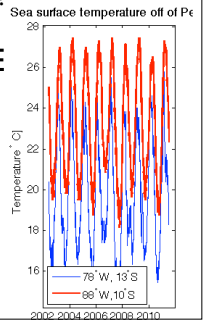
D



Check your aesthetic

Which is better? E or F?

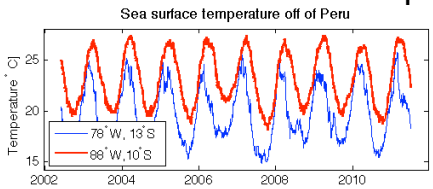
E



Check your aesthetic

Which is better? E or F?

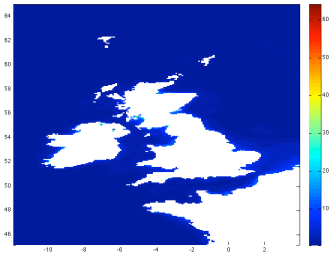
F



Check your aesthetic

Which is better?
G or H?

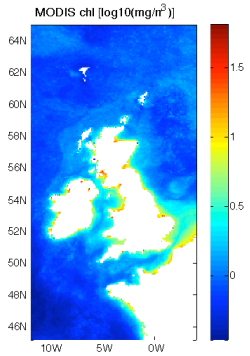
G



Check your aesthetic

Which is better?
G or H?

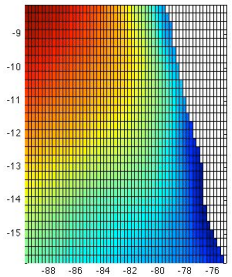
H



Check your aesthetic

Which is better?
I or J?

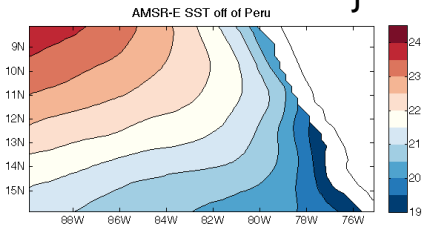
I



Check your aesthetic

Which is better?
I or J?

J

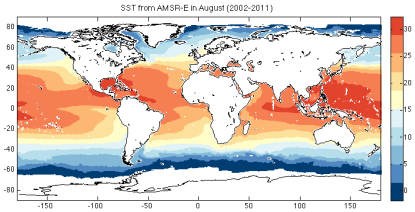


More ways to pretty your figures

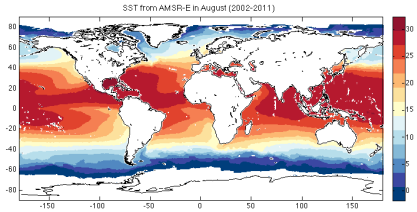
Advanced: Install the jlab toolbox, freely available from jmlilly.net

```
% Download the jlab package from here: http://jmlilly.net/jmlsoft.html
% These are a set of functions that were created by oceanographer
% Jonathan Lilly.
%
% Follow these instructions carefully:
%    1. Download the jlab-current.zip file and put it in a folder near
%       your Matlab files for this course
%    2. Extract the file: Using the Windows explorer, find the zip file,
%    right click it, and choose "extract".
%    3. Determine the location of this folder.  This is a little tricky.
%    One way to do it is to navigate to the jlab folder in Matlab (using
%    the "current folder" and triple dot choice.  Once you're in that
%    folder, enter a ">> pwd" at the command line.  The long string which
%    results is your path.  At the top of this m-file, replace the
%    "yourpath" with the path you found when you did the pwd.
%
% What this all has done.
% You have downloaded a package of Matlab functions and put them on your
% computer.  Matlab won't "see" them unless they're on Matlab's search path
% (the list of folders where Matlab will look for functions).  The search
% path always includes the current folder, which is why we've been putting
% files we need into the current folder.  But by setting your path, you
% don't need to put all the files you want to use in the same directory
% as Matlab's "current folder".
```

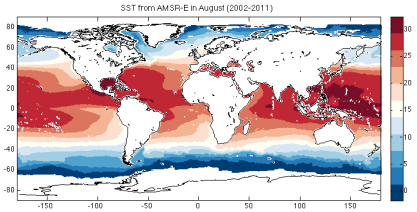

How colour conveys meaning



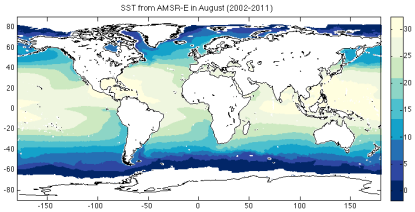
How colour conveys meaning



How colour conveys meaning

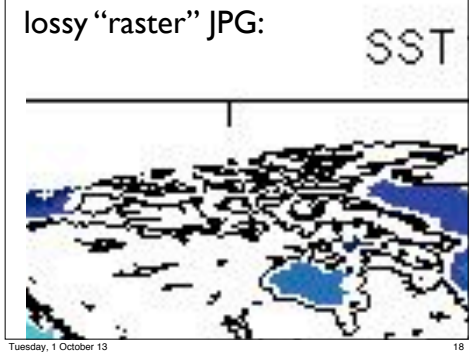


How colour conveys meaning



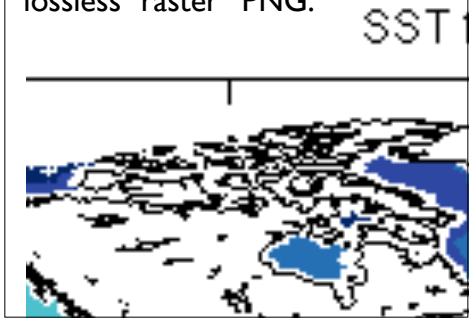
File format matters - DON'T USE JPG!

lossy "raster" JPG:



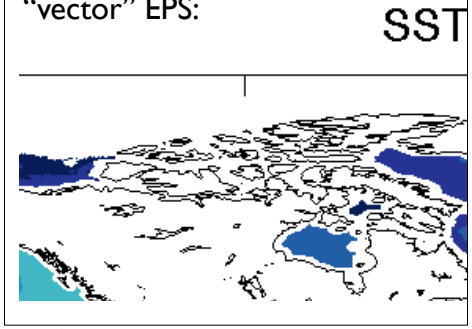
File format matters - DON'T USE JPG!

lossless "raster" PNG:



File format matters - DON'T USE JPG!

"vector" EPS:



Review

1.Think about what your figure is showing.

2.Use sensible aspect ratios, line styles, and when in doubt, label everything!

3. Colour conveys meaning.

4.Export your figures as *.PNG (for raster) or *.EPS (for vector) never *.JPG!