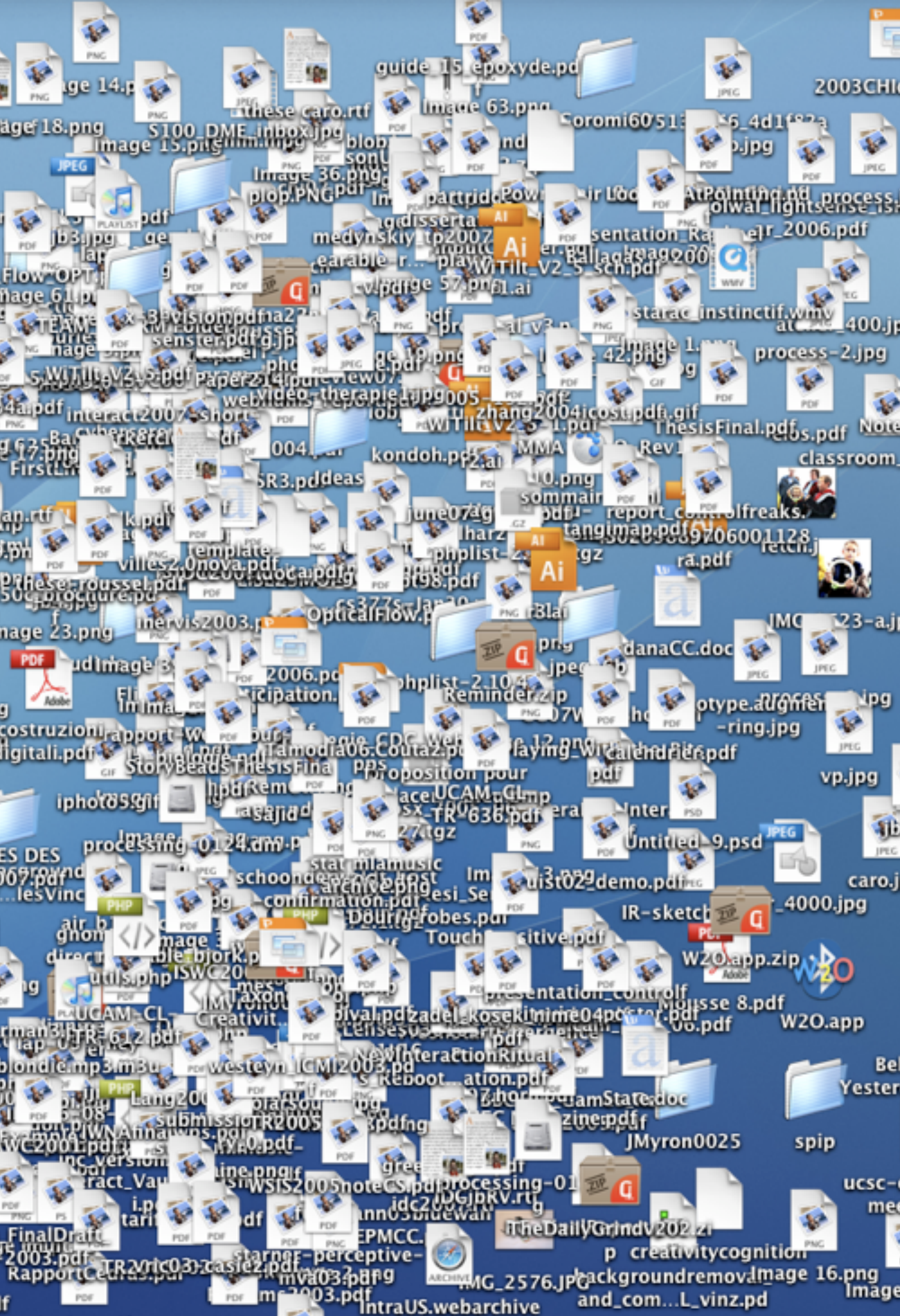


organization

prepared by Jenny Bryan for
Reproducible Science Workshop

*A place for everything,
everything in its place.*

Benjamin Franklin



Name	
.DS_Store	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_A01.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_A02.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_A03.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_B01.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_B02.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_B03.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_C01.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_C02.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_C03.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_D01.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_D02.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_D03.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_E01.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_E02.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_E03.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_F01.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_F02.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_F03.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_G01.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_G02.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_G03.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_H01.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_H02.csv	
2013-06-26_BRAFWTNEGASSAY_Plasmid-Cellline-100-1MutantFraction_H03.csv	
2013-06-26_BRAFWTNEGASSAY_Plas...lline-100-1MutantFraction_platefile.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A01.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A02.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A03.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A04.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A05.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A06.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A07.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A08.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A09.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A10.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_A11.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_B01.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_B02.csv	
2014-02-26_BRAFWTNEGASSAY_FFPEDNA-CRC-1-41_B03.csv	

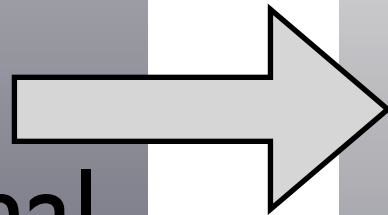
raw data



ready-to-
analyze data



computational
results

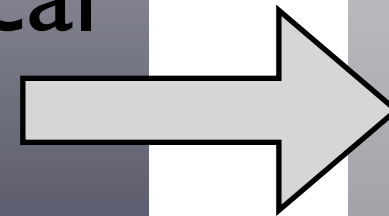


figures

tables

numerical

results



report

manuscript

poster

presentation

face it:

there are going to be files

LOTS of files

the files will change over time

the files will have relationships to each other

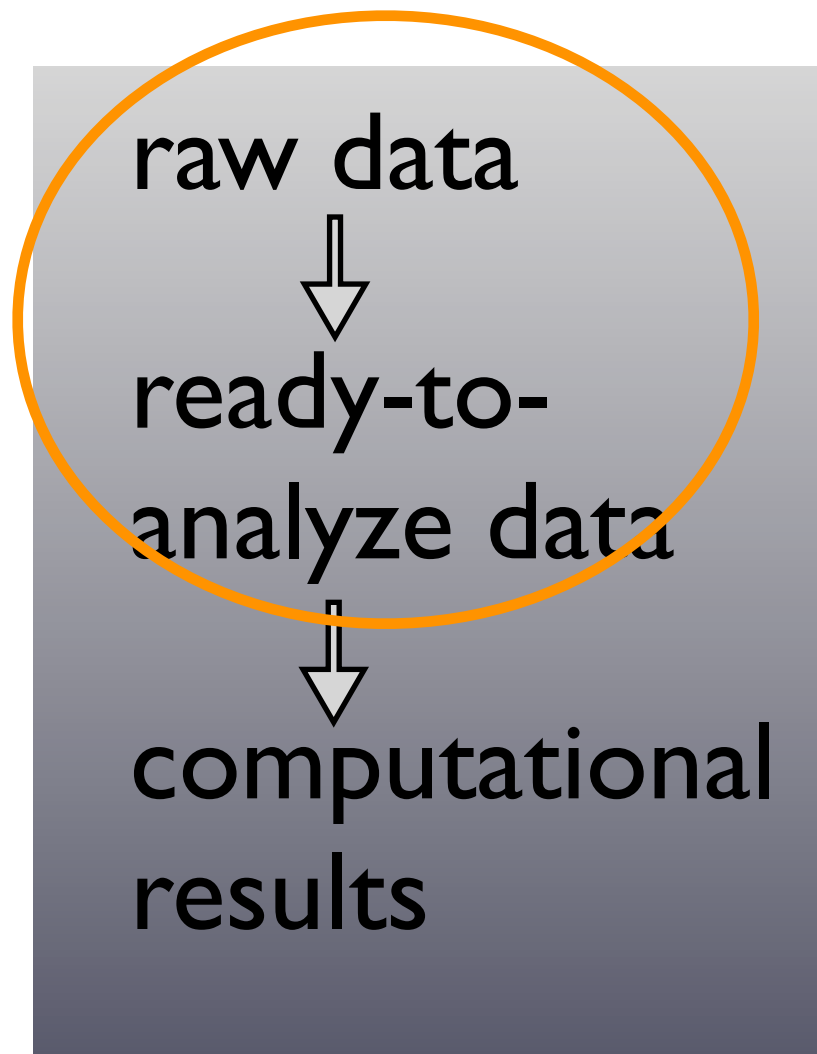
it'll probably get complicated

file organization and naming is a mighty weapon against chaos

make a file's name and location VERY INFORMATIVE about what it is, why it exists, how it relates to other things

the more things are self-explanatory, the better

README's are great, but don't document something if you could just make that thing self-documenting by definition



data

data-raw

data-clean

data/

- raw
- clean

PICK A STRATEGY
ANY STRATEGY
JUST PICK ONE!

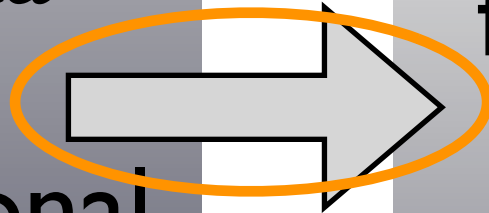
raw data



ready-to-
analyze data



computational
results



figures

tables

numerical
results

code

scripts

analysis

bin

PICK A STRATEGY
ANY STRATEGY
JUST PICK ONE!

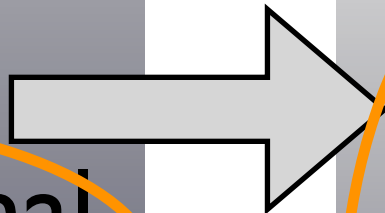
raw data



ready-to-analyze data



computational results



figures

tables

numerical results

figures
results

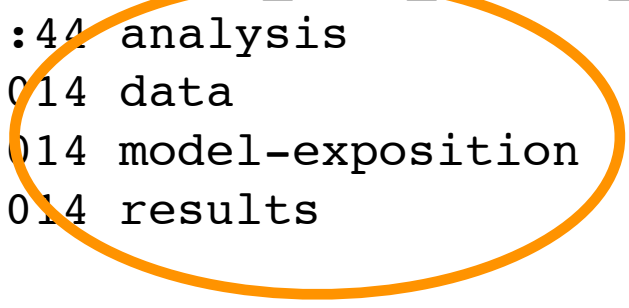
results/
- figs
- nums

figures
tables

PICK A STRATEGY
ANY STRATEGY
JUST PICK ONE!

a real (and imperfect!) example

```
/Users/jenny/research/bohlmann/White_Pine_Weevil_DE:
total used in directory 246648 available 131544558
drwxr-xr-x  14 jenny  staff          476 Jun 23  2014 .
drwxr-xr-x   4 jenny  staff          136 Jun 23  2014 ..
-rw-r--r--@  1 jenny  staff       15364 Apr 23 10:19 .DS_Store
-rw-r--r--   1 jenny  staff    126231190 Jun 23  2014 .RData
-rw-r--r--   1 jenny  staff      19148 Jun 23  2014 .Rhistory
drwxr-xr-x   3 jenny  staff         102 May 16  2014 .Rproj.user
drwxr-xr-x  17 jenny  staff         578 Apr 29 10:20 .git
-rw-r--r--   1 jenny  staff         50 May 30  2014 .gitignore
-rw-r--r--   1 jenny  staff      1003 Jun 23  2014 README.md
-rw-r--r--   1 jenny  staff        205 Jun  3  2014 White_Pine_Weevil_DE.Rproj
drwxr-xr-x  20 jenny  staff         680 Apr 14 15:44 analysis
drwxr-xr-x   7 jenny  staff         238 Jun  3  2014 data
drwxr-xr-x  22 jenny  staff         748 Jun 23  2014 model-exposition
drwxr-xr-x   4 jenny  staff         136 Jun  3  2014 results
```



```

/Users/jenny/research/bohlmann/White_Pine_Weevil_DE/data:
total used in directory 173144 available 131544552
drwxr-xr-x   7 jenny  staff      238 Jun  3  2014 .
drwxr-xr-x  14 jenny  staff      476 Jun 23  2014 ..
drwxr-xr-x  26 jenny  staff      884 May 16  2014 Sailfish-results
-rw-r--r--   1 jenny  staff    1058 Jun  3  2014 White_Pine_Weevil_exp_design.tsv
-rw-r--r--   1 jenny  staff  74299692 Jun  3  2014 consolidated-Sailfish-results.txt
-rw-r--r--   1 jenny  staff 14322520 Jun  3  2014 consolidated-filtered-Sailfish-results.txt
-rw-r--r--   1 jenny  staff   18676 May 16  2014 putativeRibosomalRNA.id

```

ready-to-
analyze data

```

/Users/jenny/research/bohlmann/White_Pine_Weevil_DE/data/Sailfish-results:
total used in directory 1528944 available 131544421
drwxr-xr-x  26 jenny  staff      884 May 16  2014 .
drwxr-xr-x   7 jenny  staff      238 Jun  3  2014 ..
-rw-r--r--   1 jenny  staff  32853651 May 16  2014 898C1_quant.sf
-rw-r--r--   1 jenny  staff  32848526 May 16  2014 898C2_quant.sf
-rw-r--r--   1 jenny  staff  32880474 May 16  2014 898C3_quant.sf
-rw-r--r--   1 jenny  staff  32761231 May 16  2014 898C4_quant.sf
-rw-r--r--   1 jenny  staff  32426796 May 16  2014 898G1_quant.sf
-rw-r--r--   1 jenny  staff  32277554 May 16  2014 898G2_quant.sf
-rw-r--r--   1 jenny  staff  32423722 May 16  2014 898G3_quant.sf
-rw-r--r--   1 jenny  staff  32348953 May 16  2014 898G4_quant.sf
-rw-r--r--   1 jenny  staff  32884204 May 16  2014 898W1_quant.sf
-rw-r--r--   1 jenny  staff  32685067 May 16  2014 898W2_quant.sf
-rw-r--r--   1 jenny  staff  32685736 May 16  2014 898W3_quant.sf
-rw-r--r--   1 jenny  staff  32828921 May 16  2014 898W4_quant.sf
-rw-r--r--   1 jenny  staff  32701429 May 16  2014 903C1_quant.sf
-rw-r--r--   1 jenny  staff  32364434 May 16  2014 903C2_quant.sf
-rw-r--r--   1 jenny  staff  32122908 May 16  2014 903C3_quant.sf
-rw-r--r--   1 jenny  staff  32527552 May 16  2014 903C4_quant.sf
-rw-r--r--   1 jenny  staff  32620769 May 16  2014 903G1_quant.sf
-rw-r--r--   1 jenny  staff  32648947 May 16  2014 903G2_quant.sf
-rw-r--r--   1 jenny  staff  32342887 May 16  2014 903G3_quant.sf
-rw-r--r--   1 jenny  staff  32734773 May 16  2014 903G4_quant.sf
-rw-r--r--   1 jenny  staff  32792759 May 16  2014 903W1_quant.sf
-rw-r--r--   1 jenny  staff  32881239 May 16  2014 903W2_quant.sf
-rw-r--r--   1 jenny  staff  32463682 May 16  2014 903W3_quant.sf
-rw-r--r--   1 jenny  staff  32673513 May 16  2014 903W4_quant.sf

```

raw data

```

/Users/jenny/research/bohlmann/White_Pine_Weevil_DE/analysis
total used in directory 248 available 131544552
drwxr-xr-x  20 jenny  staff    680 Apr 14 15:44 .
drwxr-xr-x  14 jenny  staff    476 Jun 23  2014 ..
-rw-r--r--@  1 jenny  staff   6148 Apr 14 15:44 .DS_Store
-rw-r--r--  1 jenny  staff   8075 Jun  3  2014 01_marshall-data.md
-rwxr-xr-x  1 jenny  staff   4205 Jun  3  2014 01_marshall-data.r
-rw-r--r--  1 jenny  staff   4744 Jun  3  2014 02_pre-dea-filtering.md
-rw-r--r--  1 jenny  staff   2773 Jun  3  2014 02_pre-dea-filtering.r
-rw-r--r--  1 jenny  staff  13275 Jun  3  2014 03_dea-with-limma-voom.md
-rw-r--r--  1 jenny  staff   6383 Jun 23  2014 03_dea-with-limma-voom.r
-rw-r--r--  1 jenny  staff  12910 Jun  3  2014 04_explore-dea-results.md
-rw-r--r--  1 jenny  staff   4460 Jun  3  2014 04_explore-dea-results.r
-rw-r--r--  1 jenny  staff   8142 Jun  3  2014 90_limma-model-term-name-fiasco.md
-rw-r--r--  1 jenny  staff   4107 Jun  3  2014 90_limma-model-term-name-fiasco.r
-rw-r--r--  1 jenny  staff   3018 Jun  3  2014 Makefile
drwxr-xr-x  19 jenny  staff    646 Jun  3  2014 figure
-rw-r--r--  1 jenny  staff    506 Jun  3  2014 helper01_load-counts.r
-rw-r--r--  1 jenny  staff    573 Jun  3  2014 helper02_load-exp-des.r
-rw-r--r--  1 jenny  staff    985 Jun 24  2014 helper03_load-focus-statinf.r
-rw-r--r--  1 jenny  staff    490 Jun  2  2014 helper04_extract-and-tidy.r
-rw-r--r--  1 jenny  staff   1369 Jun 23  2014 tmp.txt

```

R scripts +
the Markdown files from
“Compile Notebook”

```

/Users/jenny/research/bohlmann/White_Pine_Weevil_DE/analysis/figure:
total used in directory 1904 available 131544347
drwxr-xr-x  19 jenny  staff    646 Jun  3  2014 .
drwxr-xr-x  20 jenny  staff    680 Apr 14 15:44 ..
-rw-r--r--  1 jenny  staff  211896 Jun  3  2014 02_pre-dea-filtering-preDE-filtering.png
-rw-r--r--  1 jenny  staff  108920 Jun  3  2014 03-dea-with-limma-voom-voom-plot.png
-rw-r--r--  1 jenny  staff   29561 Jun  3  2014 04_explore-dea-results-focus-term-adjusted-p-values1.png
-rw-r--r--  1 jenny  staff   41877 Jun  3  2014 04_explore-dea-results-focus-term-adjusted-p-values2.png
-rw-r--r--  1 jenny  staff   28041 Jun  3  2014 04_explore-dea-results-focus-term-estimates1.png
-rw-r--r--  1 jenny  staff   35310 Jun  3  2014 04_explore-dea-results-focus-term-estimates2.png
-rw-r--r--  1 jenny  staff   24206 Jun  3  2014 04_explore-dea-results-focus-term-p-values1.png
-rw-r--r--  1 jenny  staff   37555 Jun  3  2014 04_explore-dea-results-focus-term-p-values2.png
-rw-r--r--  1 jenny  staff   22034 Jun  3  2014 04_explore-dea-results-focus-term-t-statistics1.png
-rw-r--r--  1 jenny  staff   34351 Jun  3  2014 04_explore-dea-results-focus-term-t-statistics2.png
-rw-r--r--  1 jenny  staff   32409 Jun  3  2014 04_explore-dea-results-unnamed-chunk-4.png
-rw-r--r--  1 jenny  staff   40795 Jun  3  2014 04_explore-dea-results-unnamed-chunk-5.png
-rw-r--r--  1 jenny  staff   41628 Jun  3  2014 04_explore-dea-results-unnamed-chunk-6.png
-rw-r--r--  1 jenny  staff   13788 Jun  3  2014 04_explore-dea-results-weevil-estimates1.png
-rw-r--r--  1 jenny  staff   20671 Jun  3  2014 04_explore-dea-results-weevil-estimates2.png
-rw-r--r--  1 jenny  staff  108920 Jun  3  2014 90_limma-model-term-name-fiasco-first-voom.png
-rw-r--r--  1 jenny  staff  108920 Jun  3  2014 90_limma-model-term-name-fiasco-second-voom.png

```

the figures created in
those R scripts and
linked in those
Markdown files

/Users/jenny/research/bohlmann/White_Pine_Weevil_DE/analysis:

total used in directory 248 available 131544552

drwxr-xr-x	20	jenny	staff	680	Apr 14 15:44	.
drwxr-xr-x	14	jenny	staff	476	Jun 23 2014	..
-rw-r--r--	1	jenny	staff	6148	Apr 14 15:44	.DS_Store
-rw-r--r--	1	jenny	staff	8075	Jun 3 2014	01_marshall-data.md
-rwxr-xr-x	1	jenny	staff	4205	Jun 3 2014	01_marshall-data.r
-rw-r--r--	1	jenny	staff	4744	Jun 3 2014	02_pre-dea-filtering.md
-rw-r--r--	1	jenny	staff	2773	Jun 3 2014	02_pre-dea-filtering.r
-rw-r--r--	1	jenny	staff	13275	Jun 3 2014	03_dea-with-limma-voom.md
-rw-r--r--	1	jenny	staff	6383	Jun 23 2014	03_dea-with-limma-voom.r
-rw-r--r--	1	jenny	staff	12910	Jun 3 2014	04_explore-dea-results.md
-rw-r--r--	1	jenny	staff	4460	Jun 3 2014	04_explore-dea-results.r
-rw-r--r--	1	jenny	staff	8142	Jun 3 2014	90_limma-model-term-name-fiasco.md
-rw-r--r--	1	jenny	staff	4107	Jun 3 2014	90_limma-model-term-name-fiasco.r
-rw-r--r--	1	jenny	staff	3018	Jun 3 2014	Makefile
drwxr-xr-x	19	jenny	staff	646	Jun 3 2014	figure
-rw-r--r--	1	jenny	staff	506	Jun 3 2014	helper01_load-counts.r
-rw-r--r--	1	jenny	staff	573	Jun 3 2014	helper02_load-exp-des.r
-rw-r--r--	1	jenny	staff	985	Jun 24 2014	helper03_load-focus-statinf.r
-rw-r--r--	1	jenny	staff	490	Jun 2 2014	helper04_extract-and-tidy.r
-rw-r--r--	1	jenny	staff	1369	Jun 23 2014	tmp.txt

linear progression of R scripts

Makefile to run the entire analysis

/Users/jenny/research/bohlmann/White_Pine_Weevil_DE/analysis/figure:

total used in directory 1904 available 131544347

drwxr-xr-x	19	jenny	staff	646	Jun 3 2014	.
drwxr-xr-x	20	jenny	staff	680	Apr 14 15:44	..
-rw-r--r--	1	jenny	staff	211896	Jun 3 2014	02_pre-dea-filtering-preDE-filtering.png
-rw-r--r--	1	jenny	staff	108920	Jun 3 2014	03-dea-with-limma-voom-voom-plot.png
-rw-r--r--	1	jenny	staff	29561	Jun 3 2014	04_explore-dea-results-focus-term-adjusted-p-values1.png
-rw-r--r--	1	jenny	staff	41877	Jun 3 2014	04_explore-dea-results-focus-term-adjusted-p-values2.png
-rw-r--r--	1	jenny	staff	28041	Jun 3 2014	04_explore-dea-results-focus-term-estimates1.png
-rw-r--r--	1	jenny	staff	35310	Jun 3 2014	04_explore-dea-results-focus-term-estimates2.png
-rw-r--r--	1	jenny	staff	24206	Jun 3 2014	04_explore-dea-results-focus-term-p-values1.png
-rw-r--r--	1	jenny	staff	37555	Jun 3 2014	04_explore-dea-results-focus-term-p-values2.png
-rw-r--r--	1	jenny	staff	22034	Jun 3 2014	04_explore-dea-results-focus-term-t-statistics1.png
-rw-r--r--	1	jenny	staff	34351	Jun 3 2014	04_explore-dea-results-focus-term-t-statistics2.png
-rw-r--r--	1	jenny	staff	32409	Jun 3 2014	04_explore-dea-results-unnamed-chunk-4.png
-rw-r--r--	1	jenny	staff	40795	Jun 3 2014	04_explore-dea-results-unnamed-chunk-5.png
-rw-r--r--	1	jenny	staff	41628	Jun 3 2014	04_explore-dea-results-unnamed-chunk-6.png
-rw-r--r--	1	jenny	staff	13788	Jun 3 2014	04_explore-dea-results-weevil-estimates1.png
-rw-r--r--	1	jenny	staff	20671	Jun 3 2014	04_explore-dea-results-weevil-estimates2.png
-rw-r--r--	1	jenny	staff	108920	Jun 3 2014	90_limma-model-term-name-fiasco-first-voom.png
-rw-r--r--	1	jenny	staff	108920	Jun 3 2014	90_limma-model-term-name-fiasco-second-voom.png

note: figure names echo the script names

```
/Users/jenny/research/bohlmann/White_Pine_Weevil_DE/results:
total used in directory 288912 available 131544548
drwxr-xr-x   4 jenny  staff      136 Jun  3  2014 .
drwxr-xr-x  14 jenny  staff      476 Jun 23  2014 ..
-rw-r--r--   1 jenny  staff 80774780 Jun 23  2014 limma-results-focus-terms.tsv
-rw-r--r--   1 jenny  staff 67143123 Jun 23  2014 limma-results-model-terms.tsv
```

**tab-delimited files with one row per gene of
parameter estimates, test statistics, etc.**

and now for something completely different!

expository files re: helping collaborators understand the model we fit (some markdown docs, a Keynote presentation, Keynote slides exported as PNGs for viewability on GitHub)

```
/Users/jenny/research/bohlmann/White_Pine_Weevil_Development/model-exposition:
total used in directory 4456 available 131544548
drwxr-xr-x  22 jenny  staff      748 Jun 23  2014 .
drwxr-xr-x  14 jenny  staff      476 Jun 23  2014 ..
-rw-r--r--   1 jenny  staff    3919 Jun 23  2014 01_model-exposition.md
-rw-r--r--   1 jenny  staff   3478 Jun 23  2014 02_model-exposition.md
-rw-r--r--   1 jenny  staff   4957 Jun 23  2014 03_model-exposition.md
-rw-r--r--   1 jenny  staff  86610 Jun 23  2014 model-exposition.001.png
-rw-r--r--   1 jenny  staff 161682 Jun 23  2014 model-exposition.002.png
-rw-r--r--   1 jenny  staff 161885 Jun 23  2014 model-exposition.003.png
-rw-r--r--   1 jenny  staff 135896 Jun 23  2014 model-exposition.004.png
-rw-r--r--   1 jenny  staff 115589 Jun 23  2014 model-exposition.005.png
-rw-r--r--   1 jenny  staff 166944 Jun 23  2014 model-exposition.006.png
-rw-r--r--   1 jenny  staff 136718 Jun 23  2014 model-exposition.007.png
-rw-r--r--   1 jenny  staff 111572 Jun 23  2014 model-exposition.008.png
-rw-r--r--   1 jenny  staff  34696 Jun 23  2014 model-exposition.009.png
-rw-r--r--   1 jenny  staff 118678 Jun 23  2014 model-exposition.010.png
-rw-r--r--   1 jenny  staff  91763 Jun 23  2014 model-exposition.011.png
-rw-r--r--   1 jenny  staff 136906 Jun 23  2014 model-exposition.012.png
-rw-r--r--   1 jenny  staff  36688 Jun 23  2014 model-exposition.013.png
-rw-r--r--   1 jenny  staff  86171 Jun 23  2014 model-exposition.014.png
-rw-r--r--   1 jenny  staff  68439 Jun 23  2014 model-exposition.015.png
-rw-r--r--   1 jenny  staff 138242 Jun 23  2014 model-exposition.016.png
-rw-r--r--   1 jenny  staff 438746 Jun 23  2014 model-exposition.key
```

caveats/problems:

that project is nowhere near done, i.e. no manuscript or publication-ready figs

file naming has inconsistencies due to 3 different people being involved

code and reports/figures all sit together because it's just much easier that way w/ knitr & rmarkdown

wins:

I can walk away from the project and come back to it a year later and resume work fairly quickly

the 2 other people (the post-doc whose project it is + the bioinformatician for that lab) were able to figure out what I did and decide which files they needed to look at, etc.

GOOD ENOUGH!

other tips: the **from_joe** directory

Let's say my collaborator and data producer is Joe. He will send me data with weird space-containing file names, data in Microsoft Excel workbooks, etc. It is futile to fight this, just quarantine all the crazy here. I rename things and/or export to plain text and put those files in my data directory. Whether I move, copy, or symlink depends on the situation. Whatever I did gets recorded in a README or in comments in my R code -- whatever makes it easiest for me to remind myself of a file's provenance, if it came from the outside world in a state that was not ready for programmatic analysis.

other tips: **give yourself less rope**

I often revoke my own write permission to the raw data file.

Then I can't accidentally edit it.

It also makes it harder to do manual edits in a moment of weakness, when you know you should just add a line to your data cleaning script.

other tips: **prose**

Sometimes you need a place to park key emails, internal documentation and explanations, random Word and PowerPoint docs people send, etc.

This is kind of like from_joe, where I don't force myself to keep same standards with respect to file names and open formats.

other tips: **life cycle of data**

Here's how most data analyses go down in reality:

you get raw data

you explore, describe and visualize it

you diagnose what this data needs to become useful

you fix, clean, marshal the data into ready-to-analyze form

you visualize it some more

you fit a model or whatever and write lots of numerical results to file

you make prettier tables and many figures based on the data & results accumulated by this point

Both the data file(s) and the code/scripts that acts on them usually reflect this progression

other tips: **life cycle of data**

prepare data

do your stats

make tables and figs

the R scripts

```
01_marshall-data.r  
02_pre-dea-filtering.r  
03_dea-with-limma-voom.r  
04_explore-dea-results.r  
90_limma-model-term-name-fiasco.r
```

the figures left behind

```
02_pre-dea-filtering-preDE-filtering.png  
03-dea-with-limma-voom-voom-plot.png  
04_explore-dea-results-focus-term-adjusted-p-values1.png  
04_explore-dea-results-focus-term-adjusted-p-values2.png  
04_explore-dea-results-focus-term-estimates1.png  
04_explore-dea-results-focus-term-estimates2.png  
04_explore-dea-results-focus-term-p-values1.png  
04_explore-dea-results-focus-term-p-values2.png  
04_explore-dea-results-focus-term-t-statistics1.png  
04_explore-dea-results-focus-term-t-statistics2.png  
04_explore-dea-results-unnamed-chunk-4.png  
04_explore-dea-results-unnamed-chunk-5.png  
04_explore-dea-results-unnamed-chunk-6.png  
04_explore-dea-results-weevil-estimates1.png  
04_explore-dea-results-weevil-estimates2.png  
90_limma-model-term-name-fiasco-first-voom.png  
90_limma-model-term-name-fiasco-second-voom.png
```

```
/Users/jenny/research/bohlmann/White_Pine_Weevil_DE:
drwxr-xr-x  20 jenny  staff      680 Apr 14 15:44 analysis
drwxr-xr-x   7 jenny  staff      238 Jun  3  2014 data
drwxr-xr-x  22 jenny  staff      748 Jun 23  2014 model-exposition
drwxr-xr-x   4 jenny  staff      136 Jun  3  2014 results
```

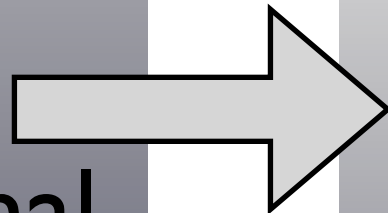
raw data



ready-to-analyze data



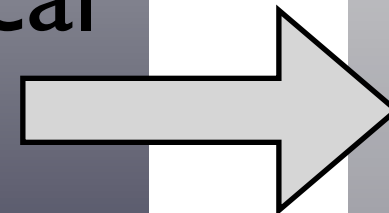
computational results



figures

tables

numerical results



report

manuscript

poster

presentation

file organization should reflect
inputs vs outputs and the flow
of information