To do/reader queries for EMD book

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General
- acknowledgments: build list
- tweak figures: labels etc.
- add/remove datasets:
  - drop myxo? say more about myxo? (incorporate the more detailed version of the myxo data set, from the Fenner et al paper, which includes individual IDs as well as just titer/day/grade)
  - could really use a simple Poisson/neg bin (count) data set (i.e. with discrete predictors, in contrast to the wrasse data set); derivation of MLE is simpler for Poisson than for binomial. Perhaps??? Hilborn and Mangel tow data?
  - spatial data set, e.g. seed traps or seedlings? (tried this with Dodd and Silvertown, but couldn't get it)
- check throughout for cite vs citep
- remove URLs wherever not absolutely vital
- incorporate term "likelihood profile" somewhere (complication: technically valid for 1-parameter models, but more common for multi-parameter models)
- switch classical-stats and examples chapter?
- subfigure labels throughout
- consistency: α and $1 - \alpha$ notation
- format for R functions: with or without ()
- are R functions "functions" or "commands"?
- consistent distribution abbreviations (NegBin, NegBinomial, etc.)
- consistent notation for likelihood, log-likelihood (should be done): $\mathcal{L}$ for likelihood, L for log-lik.
- numbers: "zero" vs. 0 etc.
- consistent Summary/Conclusion format
- consistent R supplements
- more discussion (esp. ch 3/4?) about modeling choices: which distributions and why

Chapter 1
- re-incorporate introduction to data sets?
- check Yoccoz Bull. ESA reference: accessible?
- more on alternative hypotheses, model selection, objectivity?
- ref for trophic cascades? Carpenter or generic ecology?
- supplement: decide/check on repos=NULL for zip files on Windows (perh. people should just do this for the menu?)
- put emdbook and bbmle on CRAN to avoid need for extra repos= arguments

Chapter 2 • add Bayesian refs (Ellison, Crome, Congdon ...)

- add Q-Q plots?? (or in Chapter 4)
- seed pred: replace histogram with small-multiples barchart as in examples chapter?
- (Seavy): clarify data frame/matrix distinction?

Chapter 3 • tweak Figure 3.6 (Taylor exp.)?

- add parameter values etc. to bestiary plots?

Chapter 4 • add Q-Q plots?? (or in Chapter 2)

- more on beta-binomial in anticipation of Ch. 8?
- something on Weibull in anticipation of Ch. 8?
- tweak labels on bestiary plots? Figure captions
- cite Fox on demog stoch etc.?
- Bayes' Rule: Toshi: transition not smooth; discuss Pr(data—hyp) based on an example? [refer to ch. 1?]
- Toshi: empirical Bayes discussion in prior section?
- Holly: take out [dpqr] in referring to distribution functions in R?
- hurdle models??
- variance scaling???
- (LAB 4.1: note from LC on exercise 1: rbinom= 5,2,2,2,2,4,0,0, answers for n=10)

Chapter 5 • talk about simulating from null distributions?

- redo/double-check Shepherd sims?

Chapter 6 and 7 • Bayes-factor questions (implement/document/check Laplace? warn about harmonic mean estimate (cf Clark et al)? etc ...)

- DIC questions: also check citation for DIC criteria
- succinct definition/justification of AIC?
- comment on saturated models/estimating overdispersion for full model, null distribution of deviance, etc. (with MASS warnings on bias)
- MASS4 p. 207: "for deviance tests to be applicable, the theta parameter has to be held constant for all fitted models" – why??
- Newton's method picture: arrows along lines?
- WinBUGS cross-platform stuff
- Uriarte: multinomial example?
- Raftery-Lewis criterion: why does raising quantile increase stringency??
- FIX Gibbs sampling argument!
- remove/pare down boundary-value $\bar{\chi}^2$ stuff?
- correcting for effects of transformation on likelihood of continuous data?
- cite Berger 2006 ref on various cheesy ways of picking priors and problems with them

Chapter 8 • spatial example?

- more on myxomatosis?

Chapter 9 • splines, GAMs, GAMMs?

- reincorporate table? or incorporate R functions in Figure 1?

Chapter 10   • what do I expect the reader to get out of this chapter?

- more on lme, lmer, etc.?

- examples? (spatial) Bjornstad trap data, seed predation transect, lily data; fir transect? (time series) wrasse data set? variance among experiments, frailty in goby data?

- "how to avoid fitting variance models" — shortcuts: (1) check residuals, hope there is not significant block/space/time/etc. structure; (2) fit fixed effects for discrete dependence structure (blocks); (3) use built-in tools (lme, etc.), possibly with transformation to fix variance structure

- table from old Ch. 10?

Chapter 11   • more on time delays?

- cite: Gross and Ives, Bjornstad on cod, meal moths etc.? Elderd et al.

- more/better/realistic examples???

- more on particle filtering/SIS?

algebra notes   • do linear algebra section

R stuff mle   • documentation

- rename mle to mlx (or something)?
- formula interface?
- check cross-platform
- relist capability?
- better handling of data= argument; how?
- Canham SA algorithm?
- optimMSB?
- alternate optim function/toolbox?

  emdbook   • sanity-checking for betabinom