

March 2002 (info for DHMethod.m code)

To Run,

- a) Copy all the files into one folder. Set Matlab path to that folder.
- b) From matlab command line, type DHMethod; to run all data or DHMethod(startyear, endyear) to run a specified time period.
- c) The program will ask if you want to change the default set-up = no output file, quasiextinction level = 1, and no comparison to Dennis estimates.
- d) Then it will ask for
data file:
time horizon for probability of decline or extinction calculations (e.g. 25 yrs say).

In the data file (e.g. sample.txt) each data entry should have the following 7 lines (required info is *'ed). All lines are required so if optional info is left out, -99 should be entered in its place. See sample.txt for examples:

Dataname(*) /tab Data reference /tab More data info

Data description(usually locale or some identifying information)

Species(*)

Population size filter (this is used to convert counts to a population size estimate if needed). Enter as "weight year t \tab weight year t-1 \tab weight year t-2 etc. For example, if the filter was 0.2 0.6 0.8 1, then the population size estimate would be $N_{2000} * 0.2 + N_{1999} * 0.6 + N_{1998} * 0.8 + N_{1997} * 1$.

Census year(*) Must be consecutive, i.e. don't leave out any years

Census(*) Replace missing data with -99

Inputs Nothing done with this now, but eventually this will allow you to correct for inputs into the population

Output:

Diagnostic plot with normality test, trend test and posterior pdf of estimated parameters.

Risk metric plot with plots of data and pdf of lambda ($\exp(\mu)$) and probability of decline and extinction.

Text file with various metrics and data that can be imported into excel. Column headings are fairly descriptive.