

INSTRUCTIONS for *Matlab*:

- a) Download the file **MPM.m** to your computer.
- b) You need to have a life table in a .csv file, organized as follows: (see file LT3.csv as an example)
- c) **First column**: time units, 1,2,3,...
- d) **Next S columns**: number of individuals alive by the end of each interval for each one of the S stages. (Note: add males and females in every stage).
- e) **Next column**: newborn production by the end of each interval.
- f) **Next S columns**: number of individuals dead by the end of each interval for each one of the S stages.
- g) Make sure this .csv file is in the same directory as the file MPM.m
- h) Inside the program MPM.m, the first lines are the parameters definitions:

```
% ***** Parameters *****  
nsim = 5000;  
c=0;  
% alpha = 0.1; Z=1.6449;  
alpha = 0.05; Z=1.96;  
% alpha=0.01; Z=2.5758  
% *****
```

- i) **nsim** is the number of simulations used in the bootstrap method to calculate confidence intervals. 5,000 is OK.
- j) **c** defines where individuals are born in each interval: **c** = 0 is at the beginning, **c** = 1 is at the end. A value **c** = 0 is OK. (See Hernandez-Suarez, C. M. 2011. "A note on the generation time". Oikos, 120(1), 159., doi: 10.1111/j.1600-0706.2010.18789.x)

k) Use the alpha that you need. Comment the lines you don't need using a '%' at the beginning of the line.

l) Run the program as:

```
>>MPM('fname.csv')
```

You can practice with MPM('LT3.csv'), the data set provided.