Wildlife Fatality Estimator

Carcass Persistence tutorial

Contents*:*

Module description
Preparing your data
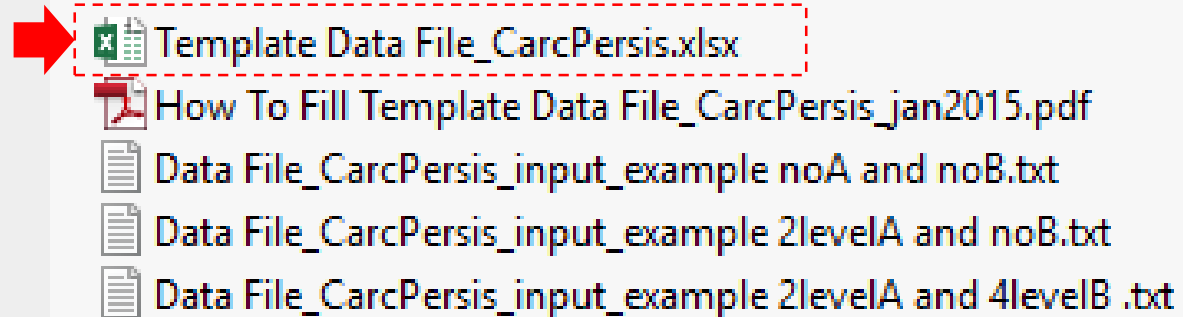*How to contact us in case of platform inquiries or assistance*

Description

The *Carcass Persistence* module allows modelling carcass removal times using parametric survival analysis procedures and, through a goodness-of-fit analysis, select the best fitting parametric model (Exponential, Weibull, Log-logistic or Log-normal) (Bispo *et al.* 2013).

The following correction factors are estimated by this module, allowing to account for carcass removal:

- Mean persistence rate - the average proportion of carcasses that died between two consecutive searches and persists until the end of the search interval

- Mean persistence time - the average number of days a carcass persists before it is removed by scavengers and/or decomposition

Preparing your data

1. Open the file "Template Data File_CarcPersis.xlsx" contained in the downloaded zip file "WFE_CarcPersis-Fill_Instructions_and_Template.zip".

Template Data File_CarcPersis.xlsx

How To Fill Template Data File_CarcPersis_jan2015.pdf

Data File_CarcPersis_input_example noA and noB.txt

Data File_CarcPersis_input_example 2levelA and noB.txt

Data File_CarcPersis_input_example 2levelA and 4levelB .txt

2. Fill in your own data:

event – information referring to the trial scenario type. Fill this column according to Table1. Mandatory column.

time, time2 – information referring to time of removal of each carcass. Fill this column according to Table1. Mandatory column.

A,B – Columns referring to the dependent variables of interest (factors).

Important notes:
- Maximum of 4 levels per factor. Do not use spaces in the level names.
- Do not change column names.

Examples:

- Season (levels: Winter, Spring, Summer, Autumn)

- Carcass size (levels: 1,2,3,4 or small, medium, large)

Mandatory columns
Optional columns

	A	B	C	D	E
1	time	time2	event	A	B
2	4	7	3		
3	4	7	3		
4	3	4	3		
5	21	28	3		
6	1	2	3		
7	35	35	0		
8	1	2	3		
9	1	2	3		
10	4	7	3		
11	10	14	3		
12	4	7	3		
13	4	7	3		
14	35	35	0		
15	1	1	2		

2. Fill in your own data:

Table1. How to fill time, time2 and event columns

Trial scenario description	time	time2	event
Carcass remains until the last day of the trial	Last day number of the trial	Last day number of the trial	0
Exact carcass removal time is known	Exact day number when carcass was removed	Exact day number when carcass was removed	1
Carcass was removed between its placement and the first visit	Day number of first visit	Day number of first visit	2
Carcass was removed between two visits	Day number of when the carcass was still present	Day number of first visit when the carcass was already removed	3

3. Copy/paste the data to a .txt file:

Example of .txt datafile with 2 factors, A and B

time	time2	event	A	B
4	7	3	Winter	Large
4	7	3	Winter	Large
3	4	3	Winter	Large
21	28	3	Winter	Large
1	2	3	Winter	Small
35	35	0	Winter	Small
1	2	3	Winter	Small
1	2	3	Winter	Small
4	7	3	Winter	Small
10	14	3	Summer	Large
4	7	3	Summer	Large
4	7	3	Summer	Large
35	35	0	Summer	Large
1	1	2	Summer	Large
4	7	3	Summer	Small
35	35	0	Summer	Small
4	7	3	Summer	Small
28	35	3	Summer	Small
21	28	3	Summer	Small
4	7	3	Spring	Large
3	4	3	Spring	Large
4	7	3	Spring	Large
28	35	3	Spring	Large
28	35	3	Spring	Large
28	35	3	Spring	Large

Example of .txt datafile with only 1 factor

time	time2	event	A
4	7	3	Winter
4	7	3	Winter
3	4	3	Winter
21	28	3	Winter
1	2	3	Winter
35	35	0	Winter
1	2	3	Winter
1	2	3	Winter
4	7	3	Winter
10	14	3	Summer
4	7	3	Summer
4	7	3	Summer
35	35	0	Summer
1	1	2	Summer
4	7	3	Summer
35	35	0	Summer
4	7	3	Summer
28	35	3	Summer
21	28	3	Summer
4	7	3	Spring
3	4	3	Spring
4	7	3	Spring
28	35	3	Spring
28	35	3	Spring
28	35	3	Spring

Example of .txt datafile with no factors

time	time2	event
4	7	3
4	7	3
3	4	3
21	28	3
1	2	3
35	35	0
1	2	3
1	2	3
4	7	3
10	14	3
4	7	3
4	7	3
35	35	0
1	1	2
4	7	3
35	35	0
4	7	3
28	35	3
21	28	3
4	7	3
3	4	3
4	7	3
28	35	3
28	35	3
28	35	3

4. Your .txt file is ready to be uploaded to the platform. Just follow the steps to get your estimates.

References

This module is based on the work from the following authors:

Bispo, R., Bernardino, J., Marques, T.A. & Pestana, D. (2013) Modeling carcass removal time for avian mortality assessment in wind farms using survival analysis. Environmental and Ecological Statistics, 20:147-165.

How to contact us in case of platform inquiries or assistance

Please send us an email with your questions/suggestions referring "WFE platform" on your email's subject field:
info@bioinsight.pt