

Wildlife Fatality Estimator



Search Efficiency tutorial

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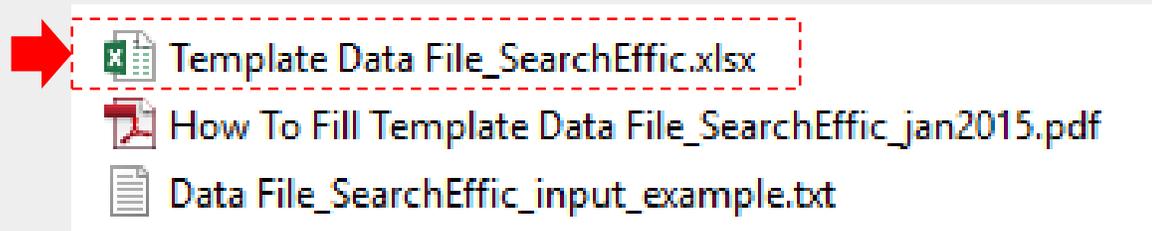
How to contact us in case of platform inquiries or assistance

Description

The *Search Efficiency* module estimates carcasses detection probability *per* one or two independent variables, as well as the overall detection probability. The estimates for search efficiency are calculated through binomial mixed models. Precision evaluation is based on a beta distribution leading to 95% confident intervals (Korner-Nievergelt *et al.* 2014).

Preparing your data

1. Open the file “Template Data File_SearchEffic.xlsx” contained in the downloaded zip file “WFE_SearchEffic-Fill_Instructions_and_Template.zip”.



2. Fill in your own data:

Detected – information referring to the detected objects in the study.

It is a binary variable that must be assigned with:

- 1 if the object of the search was detected;
- 0 if search objects that have not been detected.

Mandatory columns
 Optional columns

| | A | B | C |
|----|----------|---------|---------|
| 1 | Detected | FactorA | FactorB |
| 2 | 1 | | |
| 3 | 1 | | |
| 4 | 1 | | |
| 5 | 1 | | |
| 6 | 1 | | |
| 7 | 1 | | |
| 8 | 1 | | |
| 9 | 1 | | |
| 10 | 1 | | |
| 11 | 1 | | |
| 12 | 1 | | |
| 13 | 0 | | |
| 14 | 0 | | |

FactorA, FactorB – Columns referring to the dependent variables of interest (factors).

Important notes:

- Do not use spaces in the level names.
- Do not change column names.

Examples:

- Person who performs the carcass search (e.g. John_Doe)
- Carcass size (levels: 1,2,3,4 or small, medium, large)
- Wind turbine number

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

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

| Detected | FactorA | FactorB |
|----------|---------|---------|
| 1 | A1 | B1 |
| 1 | A3 | B1 |
| 1 | A2 | B1 |
| 1 | A1 | B1 |
| 1 | A2 | B1 |
| 1 | A2 | B1 |
| 1 | A1 | B1 |
| 1 | A2 | B1 |
| 1 | A3 | B1 |
| 1 | A1 | B1 |
| 1 | A3 | B1 |
| 0 | A3 | B1 |
| 0 | A2 | B1 |
| 1 | A1 | B1 |
| 0 | A2 | B1 |
| 0 | A3 | B1 |
| 0 | A1 | B1 |
| 1 | A3 | B1 |
| 1 | A2 | B1 |
| 1 | A3 | B1 |

Example of .txt datafile with only 1 factor

| Detected | FactorA |
|----------|---------|
| 1 | A1 |
| 1 | A3 |
| 1 | A2 |
| 1 | A1 |
| 1 | A2 |
| 1 | A2 |
| 1 | A1 |
| 1 | A2 |
| 1 | A3 |
| 1 | A1 |
| 1 | A3 |
| 0 | A3 |
| 0 | A2 |
| 1 | A1 |
| 0 | A2 |
| 0 | A3 |
| 0 | A1 |
| 1 | A3 |
| 1 | A2 |
| 1 | A3 |

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:

Korner-Nievergelt, F., Niermann, I., Behr, O., Etterson, M. A., Brinkmann, R., Korner, P., Hellriegel, B., Roth, T., Huso, M. & Dalthorp, D.H. (2014). Carcass: Estimation of the number of fatalities from carcass searches. R package. Version 1.2.

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