Wildlife Biology

# WLB-00634

Rutten, A., Casaer, J., Strubbe, D. and Leirs, H. 2019.

Agricultural and landscape factors related to increasing wild boar agricultural damage in a highly anthropogenic landscape. - Wildlife Biology 2019: wlb.00634

Appendix 1-3

## Appendix 1: maize model plots

# Damage, d - 3, Ir - 5e-04

Figure A1.1. Relation between holdout deviance and number of trees for the landscape model maize model

no. of trees

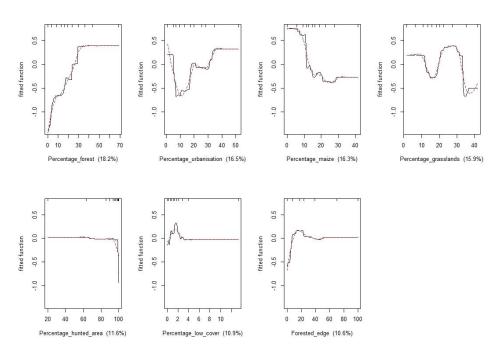


Figure A1.2. Relation between damage probability and all included variables with their importance between brackets for the landscape maize model. Black line represents fitted relationship, red line represents smoothed relationship.

Table A1.3. Interactions included in the landscape maize model with interactions sizes and interaction plots.

Variable 1	Variable 2	Interaction size	Interaction plot
Percentage of grassland	Percentage of maize	7.65	0.9 10 10 10 10 10 10 10 10 10 10
Percentage of grassland	Percentage of low cover	6.76	0.8 9.7 0.6 90.5 0.4 0.3 100 0.8 0.4 0.3 0.4 0.4 0.3 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4

## Damage, d - 1, Ir - 0.005

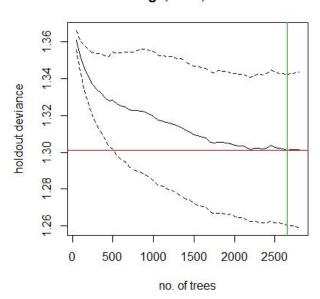


Figure A2.1. Relation between holdout deviance and number of trees for the field specific maize model

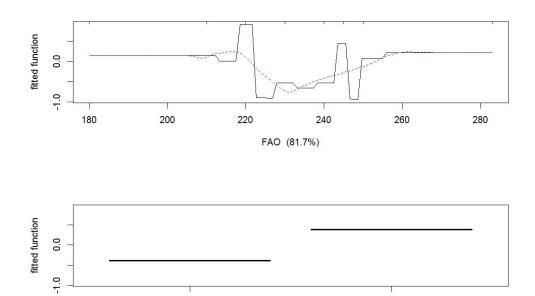


Figure A2.2. Relation between damage probability and all included variables with their importance between brackets for the field specific maize model. Black line represents fitted relationship, red line represents smoothed relationship.

Inorganic\_fertilization (18.3%)

Yes

No

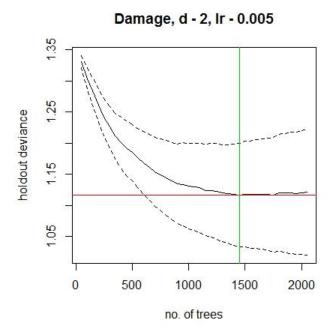


Figure A1.3.1. Relation between holdout deviance and number of trees for the combined maize model

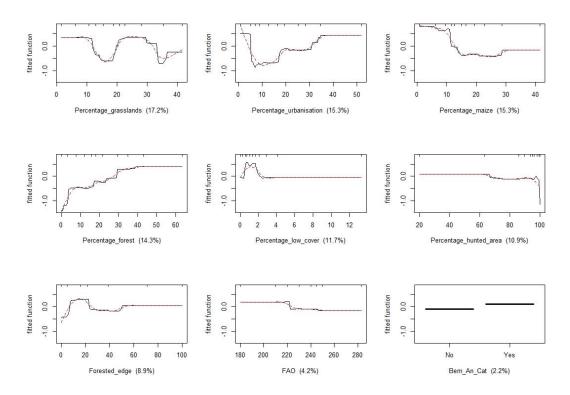


Figure A1.3.2. Relation between damage probability and all included variables with their importance between brackets for the combined maize model. Black line represents fitted relationship, red line represents smoothed relationship.

Table A1.3.3. Interactions included in the combined maize model with interactions sizes and interaction plots.

Variable 1	Variable 2	Interaction size	Interaction plot
Precocity-value	Percentage of forested edge	5.08	0.7 1.8 6 2.5 5 1.8 0 4 1.0 0 2.0 0 2.
Percentage of grassland	Percentage of low cover	4.50	0.8 0.7 10.8 0.3 0.2 10.3 0.2 10.3 0.2 10.3 0.2 10.3 0.3 0.2 10.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Percentage of low cover	Percentage of forest	4.31	0 8 8 100 8
Percentage of maize	Percentage of urbanization	2.40	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

### **Appendix 2: grassland model plots**

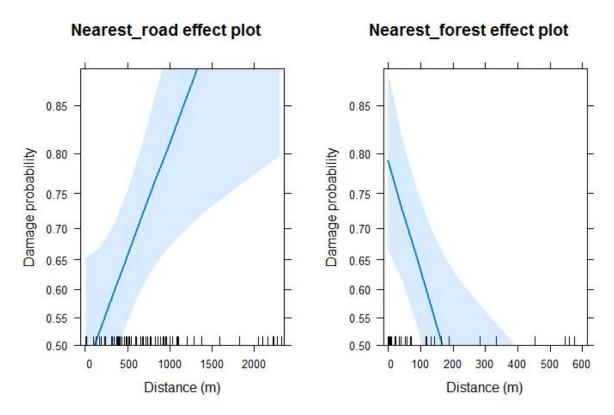


Figure A2.1. Effects plots of final grassland landscape model with increasing damage probability when distance to nearest road (m) increases and distance to nearest forest (m) decreases.

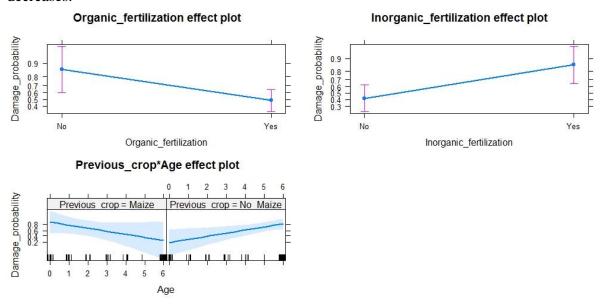


Figure A2.2. Effects plots of final field specific grassland model with decreasing damage probability when applying organic fertilization, increasing damage probability when applying inorganic fertilization, decreasing damage probability with increase age when maize was cultivated before and increasing damage probability with increasing age when maize was not cultivated before.

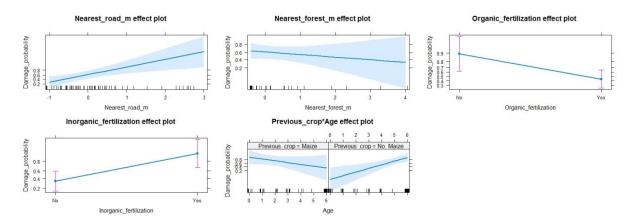


Figure A2.3. Effects plots of final field specific grassland model with increasing damage probability when distance to nearest road (m) increases and distance to nearest forest (m) decreases, decreasing damage probability when applying organic fertilization, increasing damage probability when applying inorganic fertilization, decreasing damage probability with increase age when maize was cultivated before and increasing damage probability with increasing age when maize was not cultivated before.

## Appendix 3: mess maps

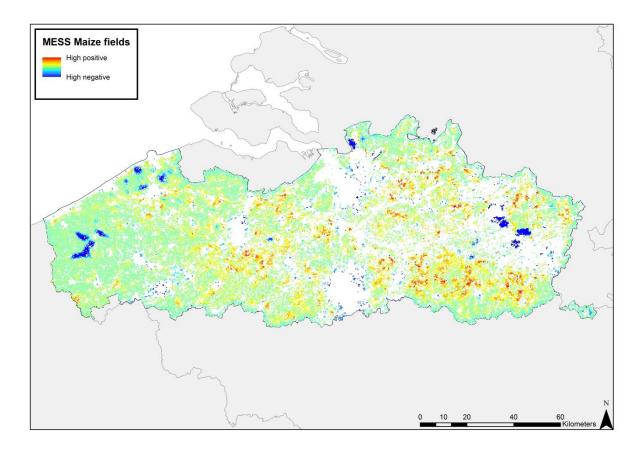


Figure A3.1. MESS maps (multivariate environmental similarity surface) for landscape model of maize fields with positive MESS-values (green to red) reflecting full range of variable conditions are included in the data (higher positive values are better represented by the data) and negative MESS-values (blue) reflecting variable conditions which are not included in the data thus the model is extrapolating.

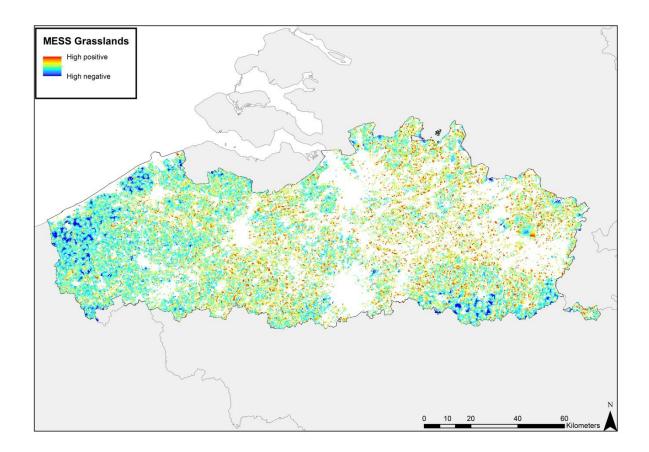


Figure A3.2. MESS maps (multivariate environmental similarity surface) for combined model of grasslands with positive MESS-values (green to red) reflecting full range of variable conditions are included in the data (higher positive values are better represented by the data) and negative MESS-values (blue) reflecting variable conditions which are not included in the data thus the model is extrapolating.