

Ecography

ECOG-01389

Veran, S., Piry, S., Ternois, V., Meynard, C. N., Facon, B. and Estoup, A. 2015. Modeling spatial expansion of invasive alien species: relative contributions of environmental and anthropogenic factors to the spreading of the harlequin ladybird in France. – Ecography doi: [10.1111/ecog.01389](https://doi.org/10.1111/ecog.01389)

Supplementary material

Appendix 1

Figure A1: Method for delimitation of cells included in the spatial expansion analysis of *Harmonia axyridis*: example of modelling transition from 2004 to 2005.

Note: Dark grey circles are observation data of *H. axyridis* in 2004; white circles are new observation data of *H. axyridis* in 2005. The cells in light grey around a circle buffer of 50 km from observations in 2005 are considered as having the potential to be invaded between 2004 and 2005 and are thus included in the model. The cells outside this buffer zone are coded as non-surveyed to account for the fact that they cannot be invaded. The same process is repeated for each transition step (i.e. going from year n to $n+1$).

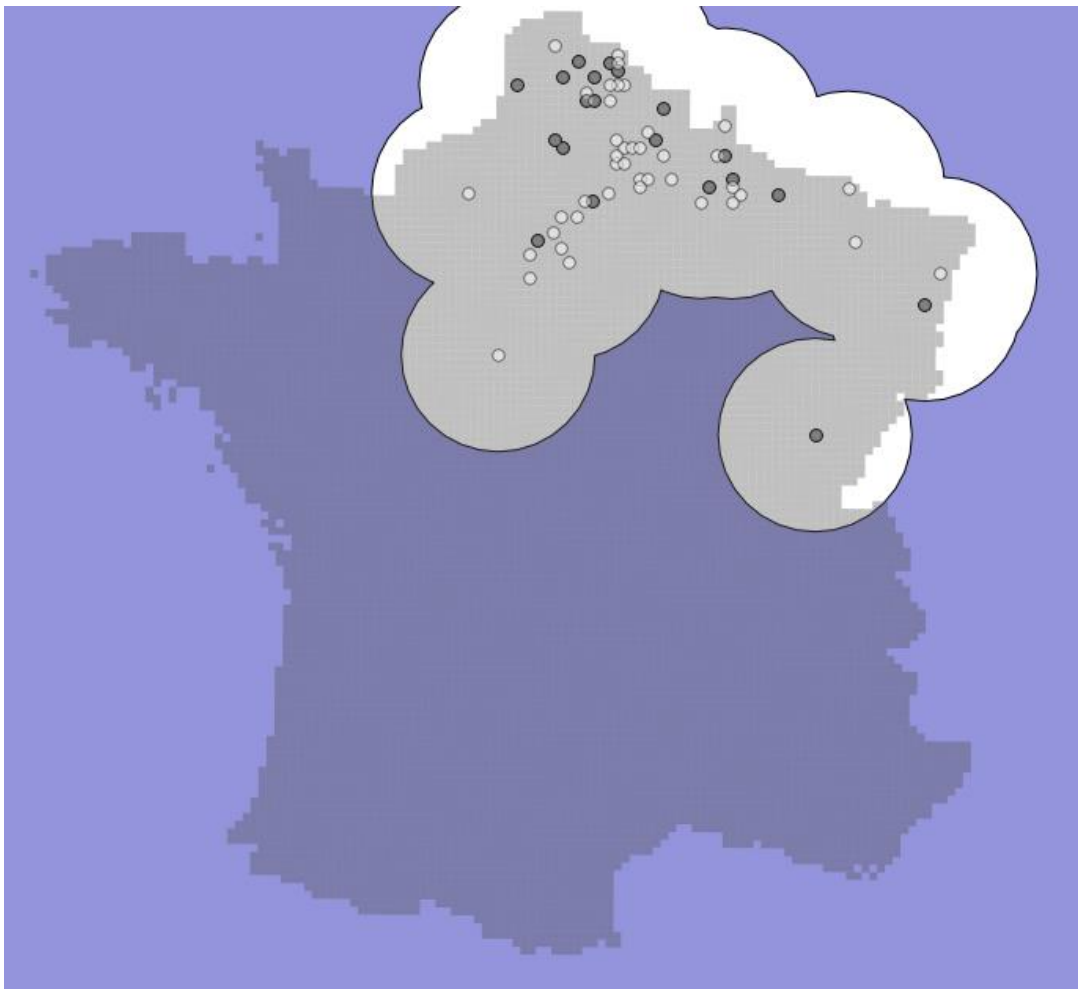
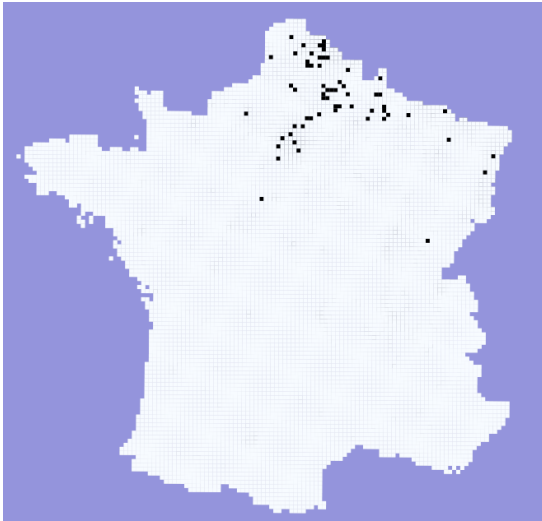
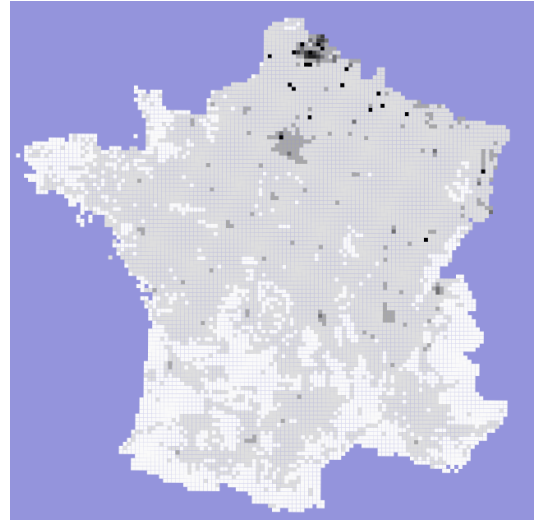


Figure A2: Comparison of observed and predicted spatial distribution of *Harmonia axyridis* (HA) in France in 2005 (a-, b-) and 2007 (c-, d-).

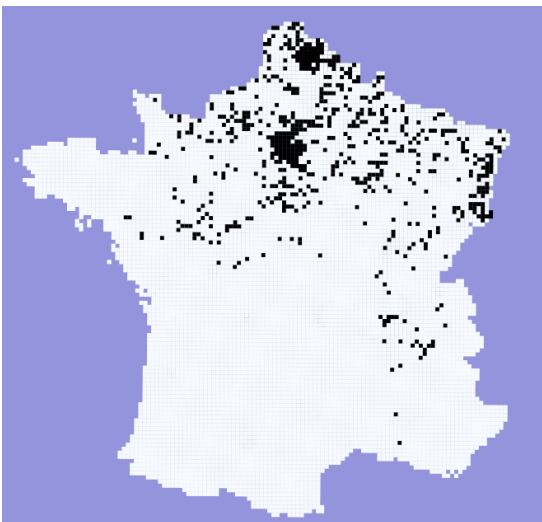
a- Observed presence of HA in 2005



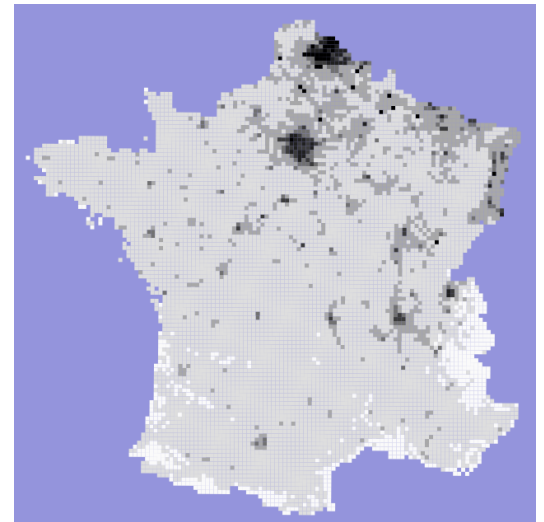
b- Predicted presence of HA in 2005



c- Observed presence of HA in 2007



d- Predicted presence of HA in 2007



Probability of
presence of HA

