Histoire et géographie de l'extinction du pestivirus chez les isards de la réserve d'Orlu

Septembre 2018

Emmanuelle Gilot-Fromont, Mathieu Garel, Philippe Gibert, Sébastien Lambert, Pierre Menaut, Brigitte Bonetti, Yvette Game, Gaël Reynaud, Kévin Foulché

LBBE

VetAgro Sup

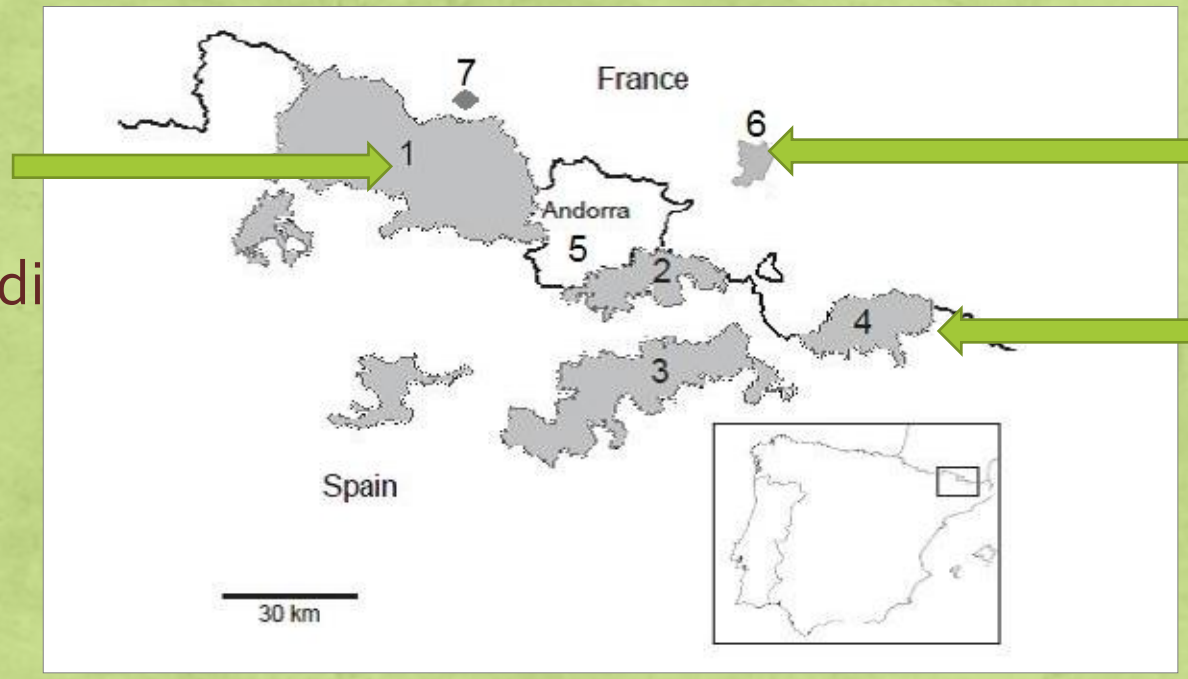
Office National de la Chasse et de la Faune Sauvage

SAVOIE
CONSEIL GENERAL
Laboratoire d'analyses vétérinaires

Le pestivirus: encore des questions

Transmission et impact sur les populations d'isards hétérogènes

Epidémie forte et rapide: Cadi



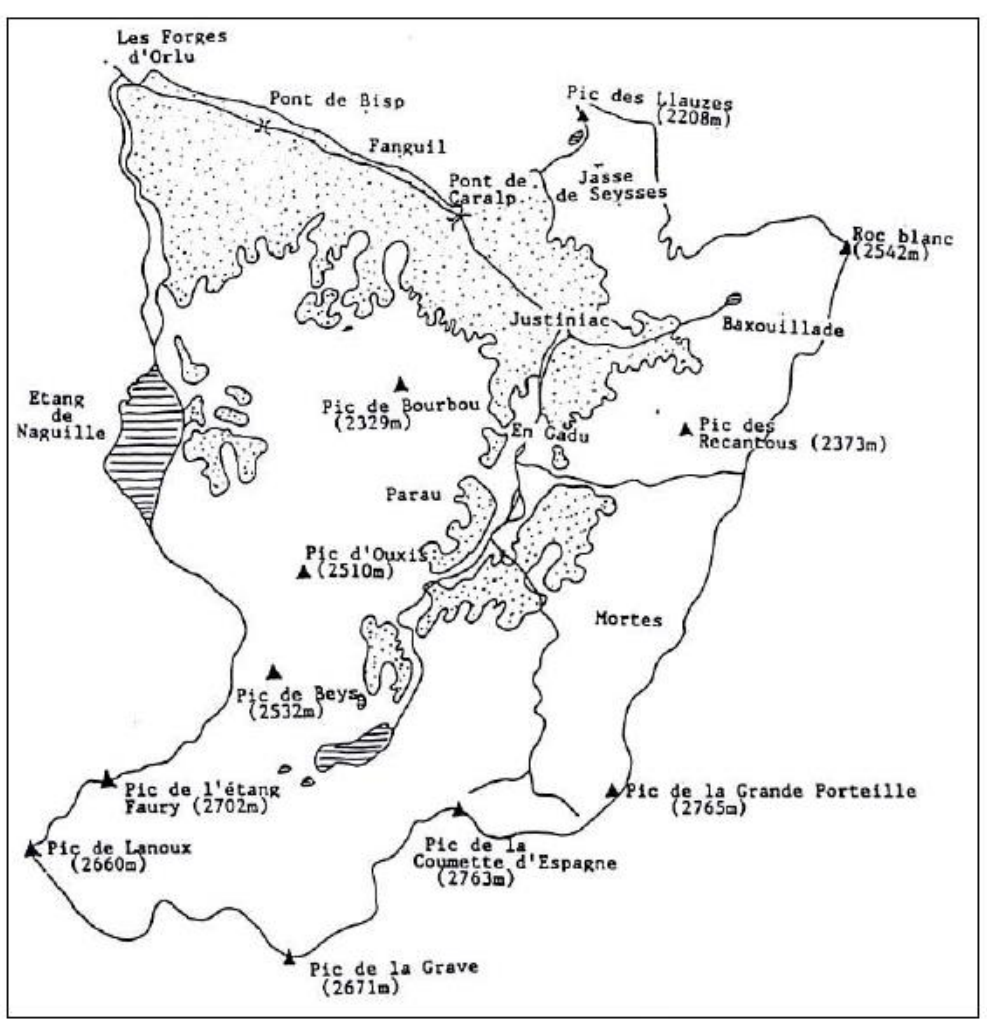
Epidémie sur plusieurs années: Orlu

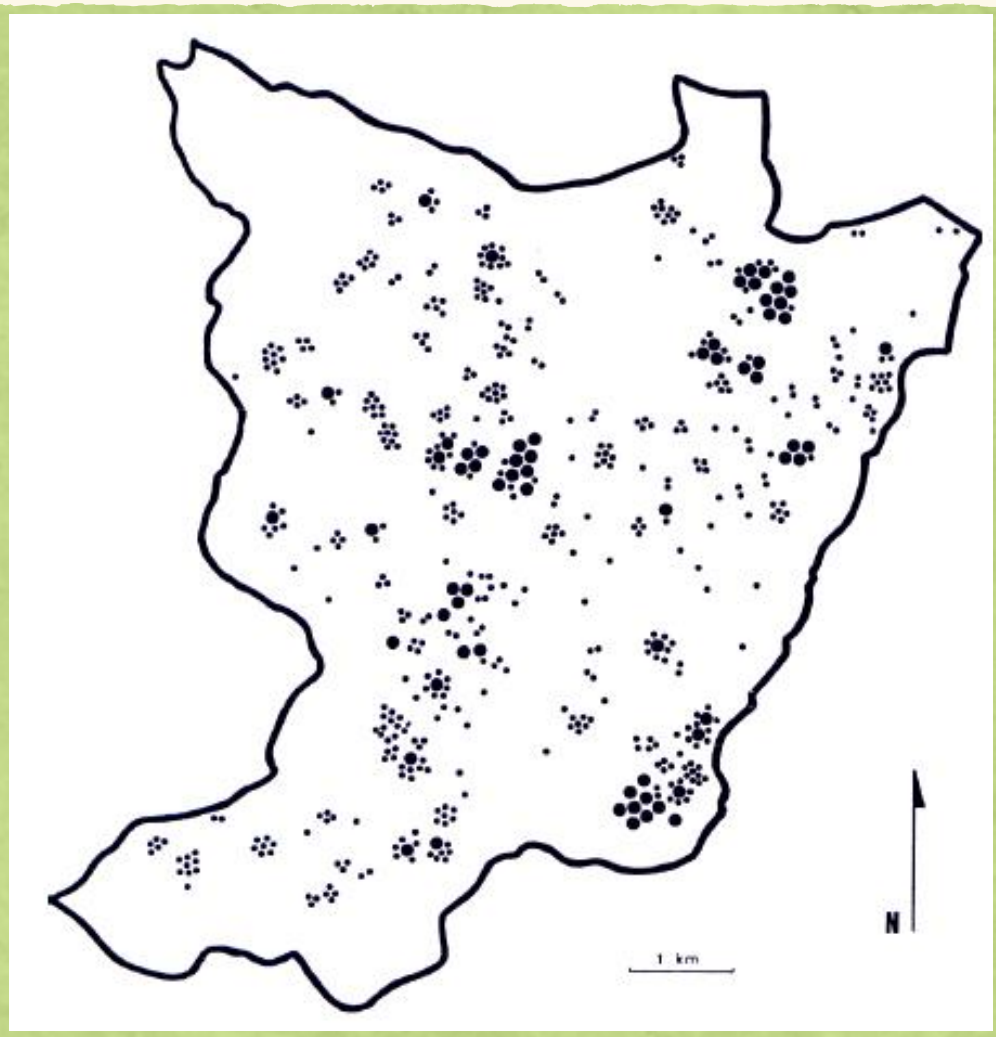
Endémie: Freser-Setcases

Marco et al. 2009

Pourquoi ces variations? Quoi faire?
Suivi intense et long : RNCFS d'Orlu

La RNCFS d'Orlu



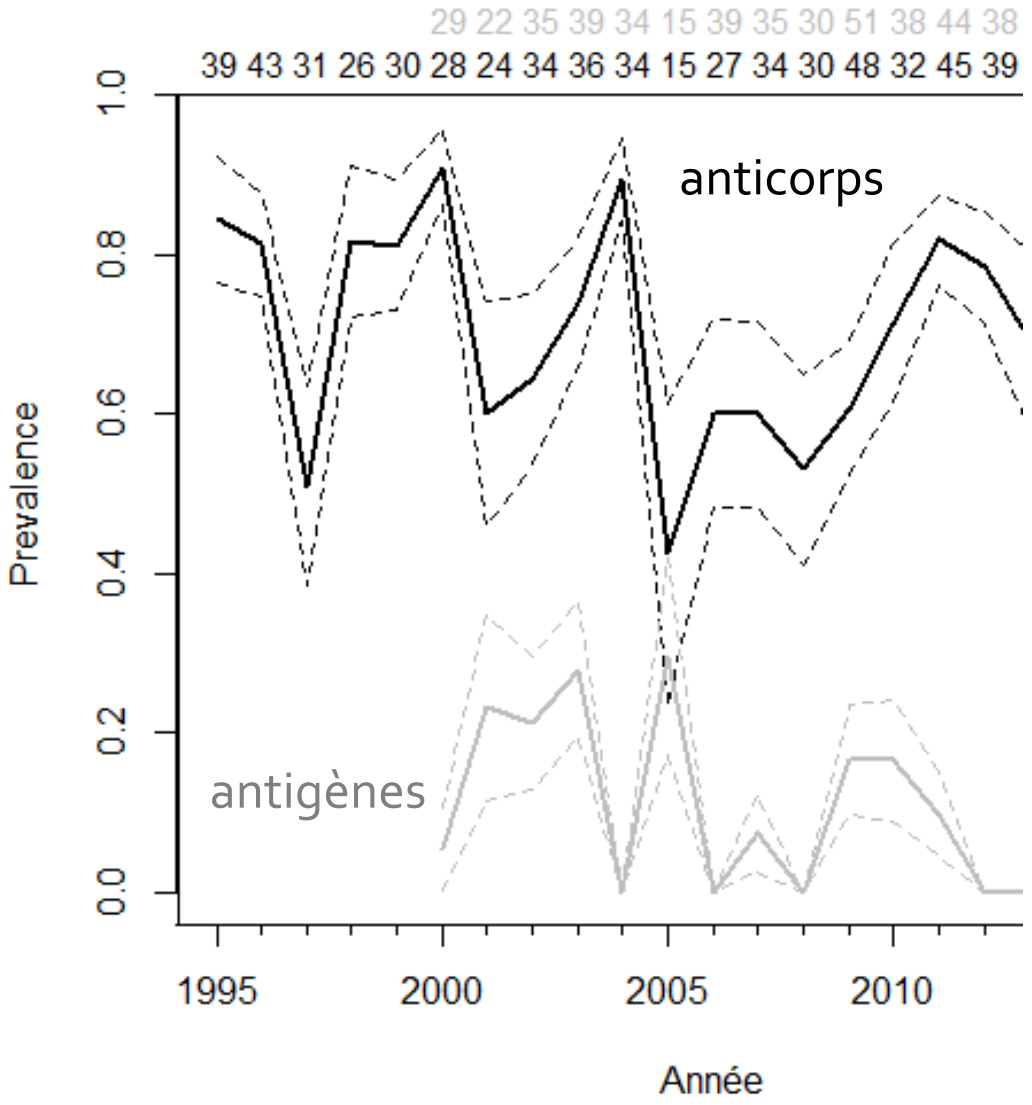


Histoire: suivi des anticorps et des antigènes

Présence du virus < 1995

Prévalence anticorps (ajustée à 5 ans) et antigène (ajustées à l'automne)

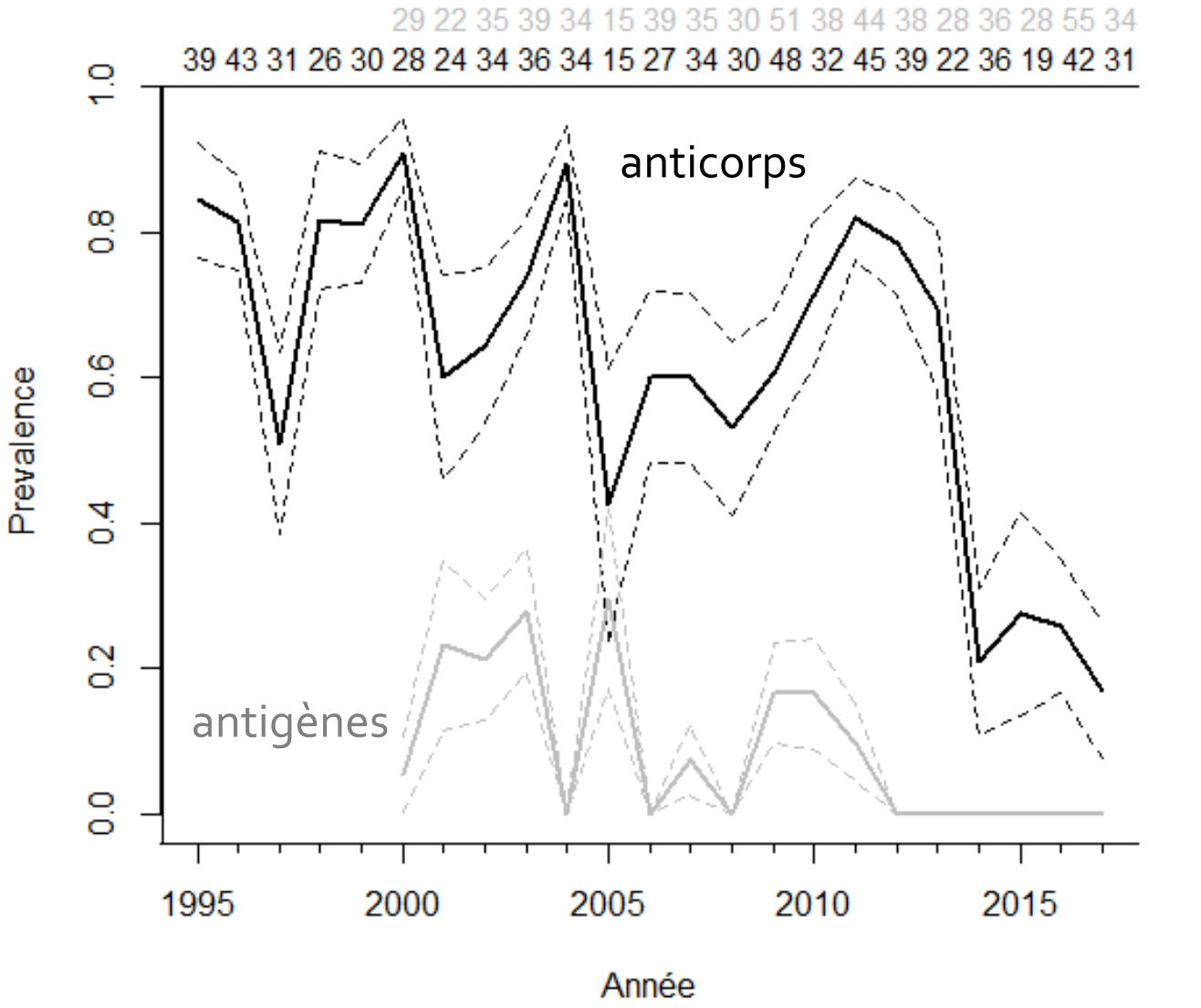
Variations interannuelles



Suivi des anticorps et des antigènes

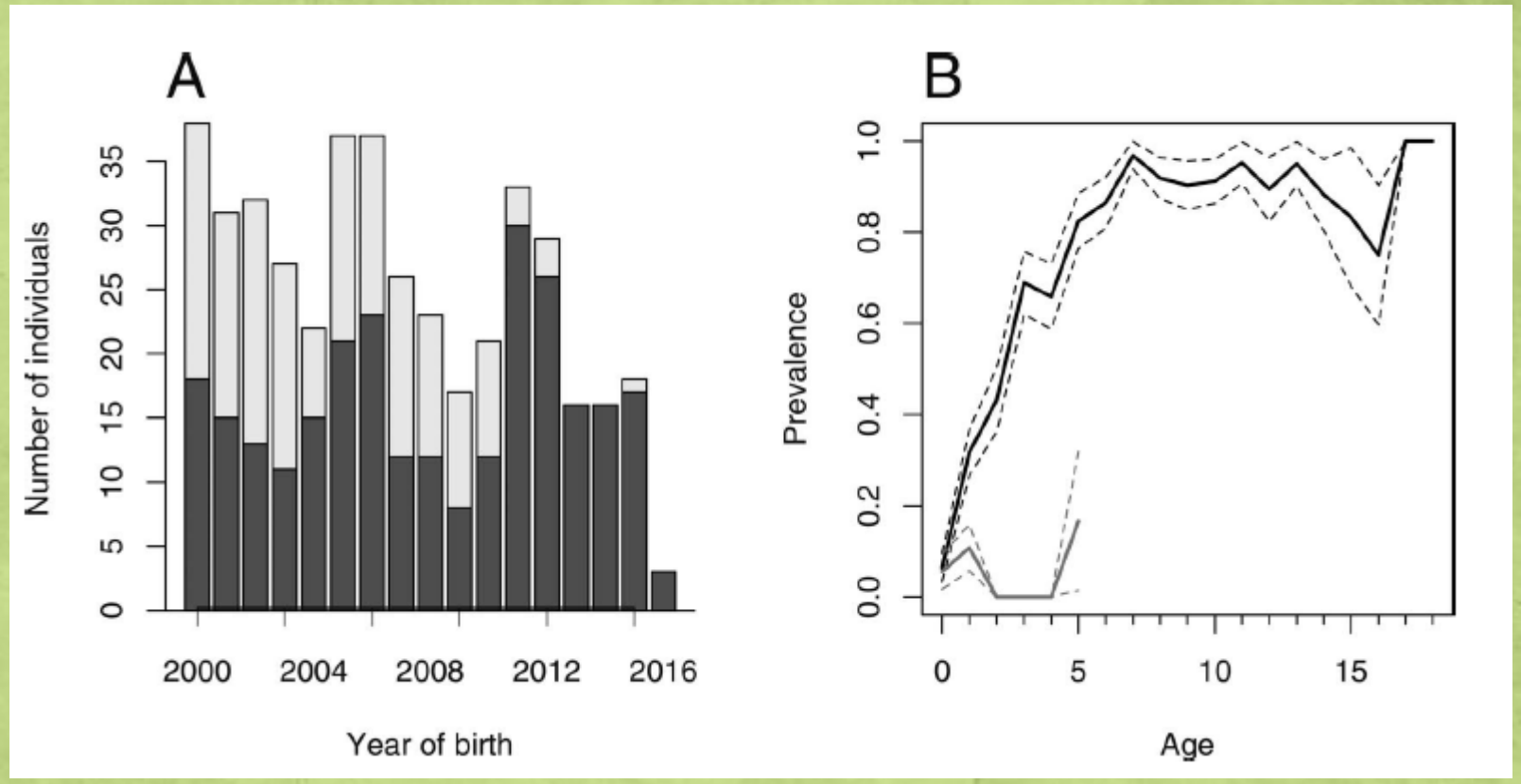
2014: diminution forte de la prévalence des anticorps
… sans augmentation de la prévalence des antigènes

Extinction entre novembre 2011 (dernier antigène +) et 2014?



Quelles cohortes sont concernées?

- **Extinction: changement de pente de la relation âge-prévalence**
- **Meilleure discrimination: avant 2010 / à partir de 2011**



Quelles cohortes sont concernées?

- Isards nés depuis 2011: 134 neg, 8 pos:
- 2 chevreaux (Ac maternels?)
- Anticorps propres chez des isards nés en:

  2011: 3 pos/31: 2 éterlous, 5 ans

  2012: 1 pos/27: 1 an

  2013: 0 pos/23

  2014: 1 pos/19: 3 ans

  2015: 1 pos/20: 1 an

  2016: 0 pos/10

  2017: 0 pos/5

Transmission locale en fin de période de présence du virus?

Animaux disperseurs?

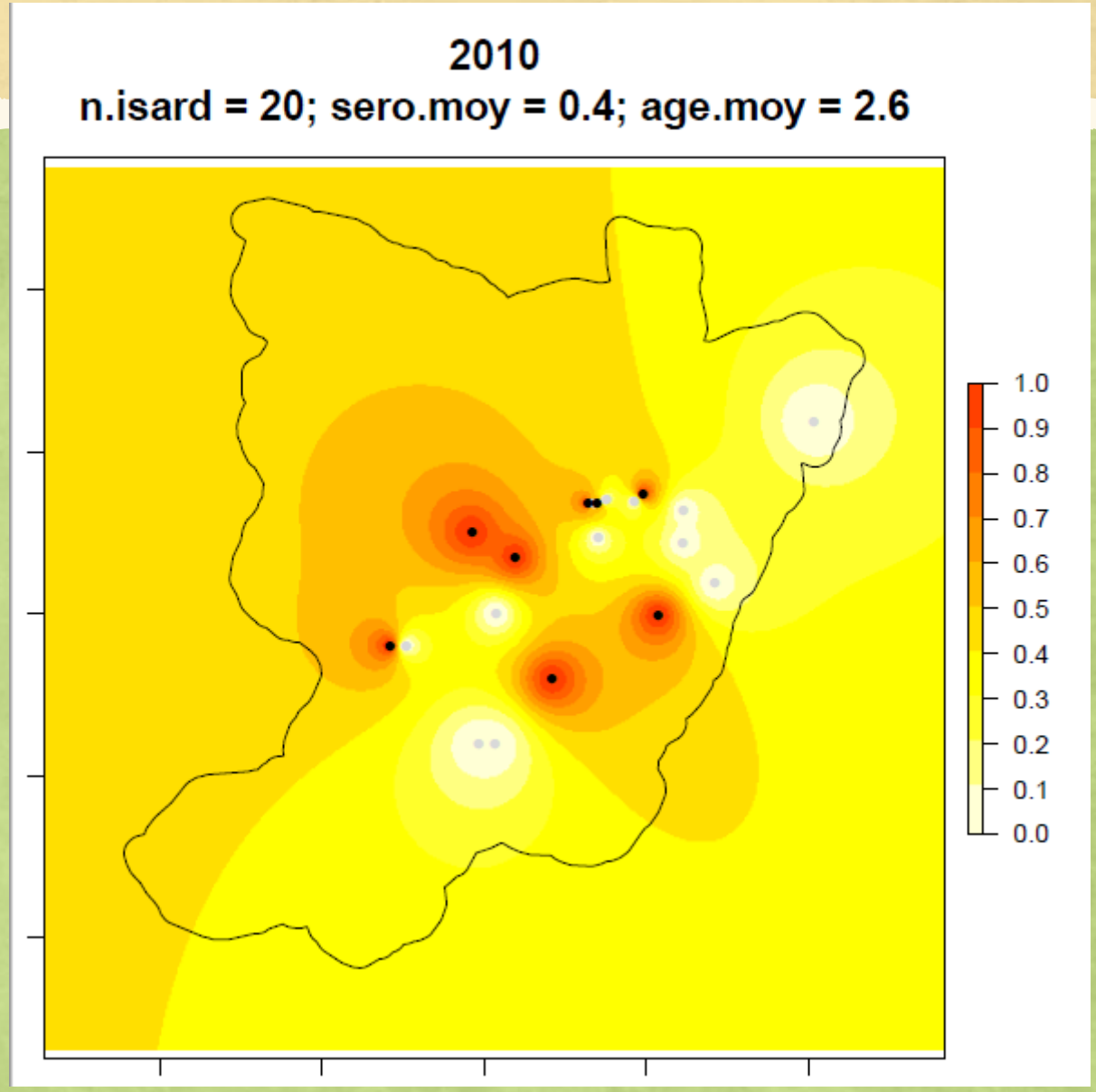
-> Approche spatiale

Géographie de l'extinction

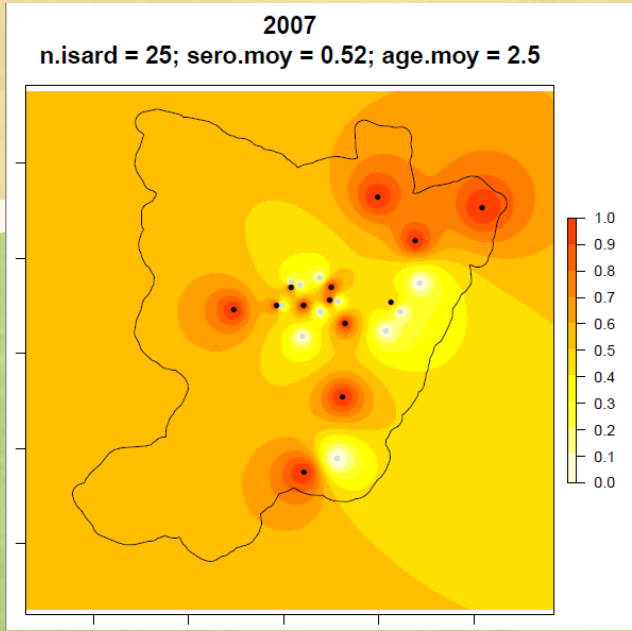
Localisation des animaux capturés et chassés: 1 point par individu
Par cohorte (Âges variés): pour chaque cohorte, lieu des infections au cours des 2 premières années

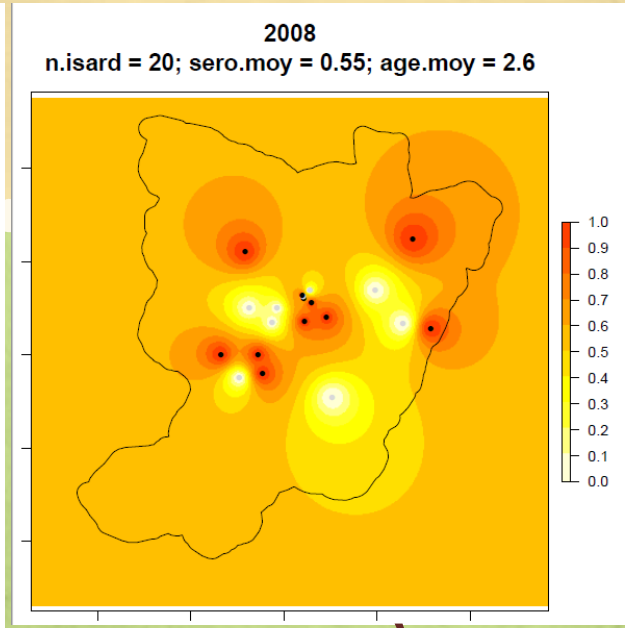
Chassés: lieu / statut du tir
Capturés: barycentre des localisation

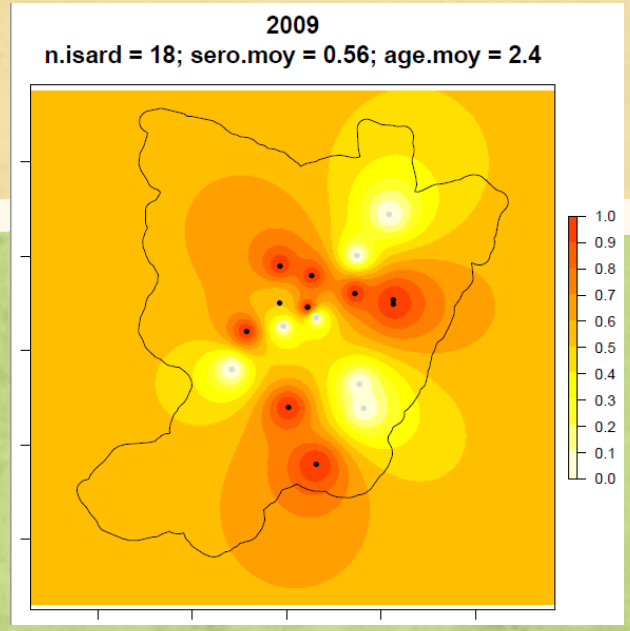
N > 10

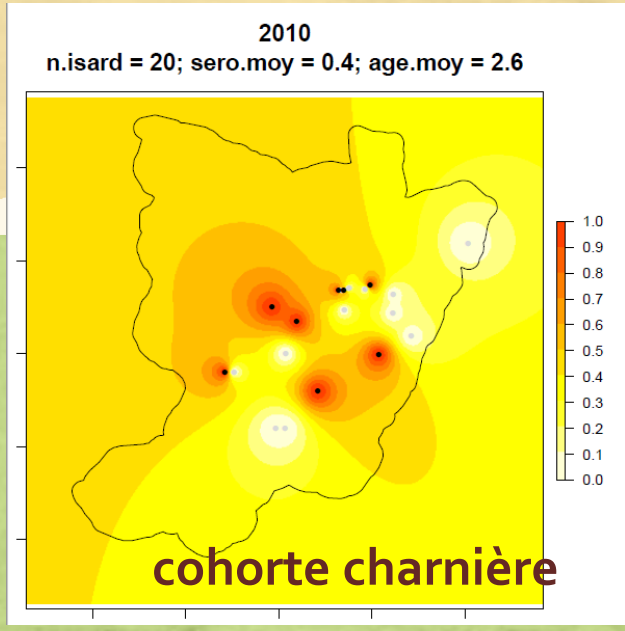


Avant: 2007 - 2010

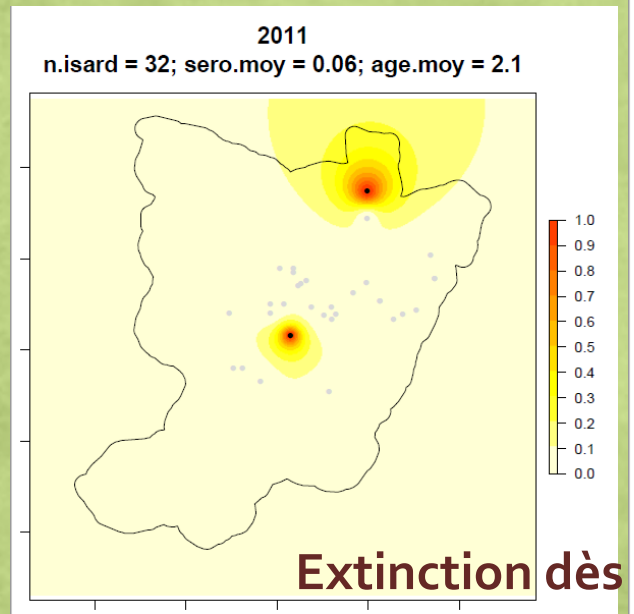


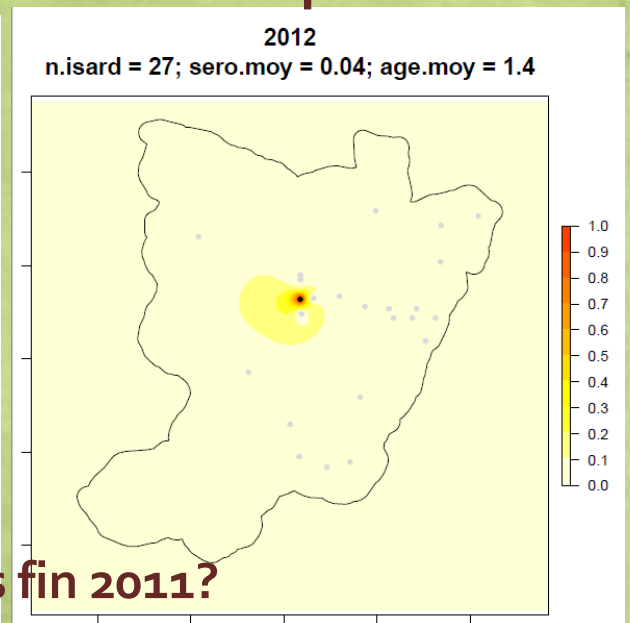


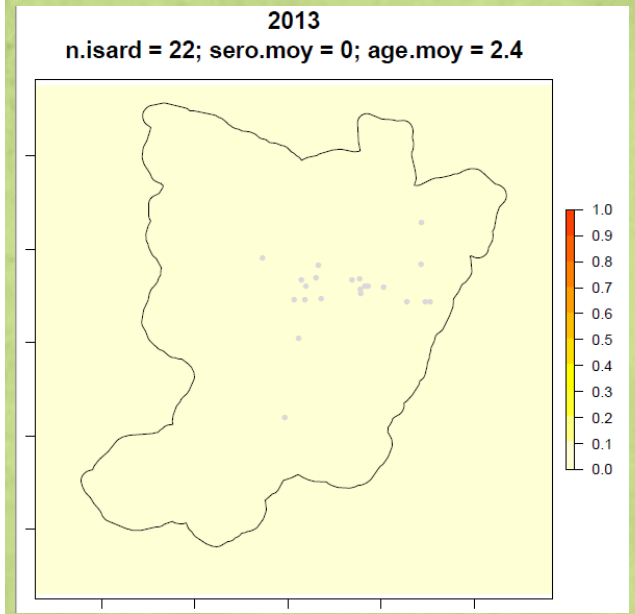


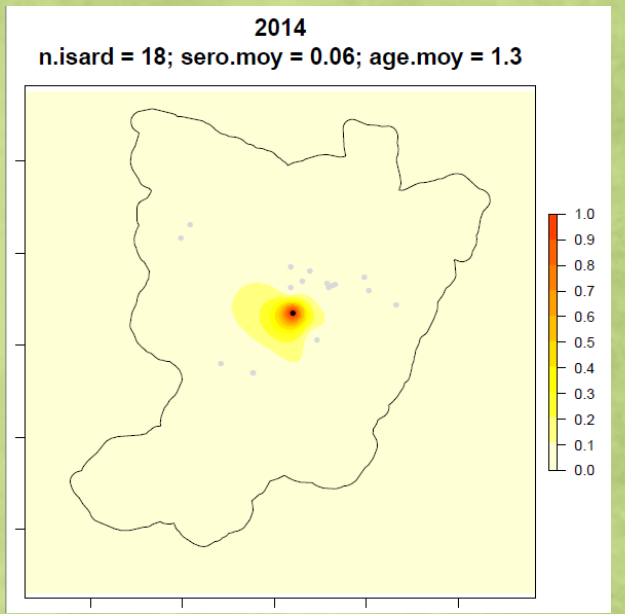


Après: 2011 - 2014

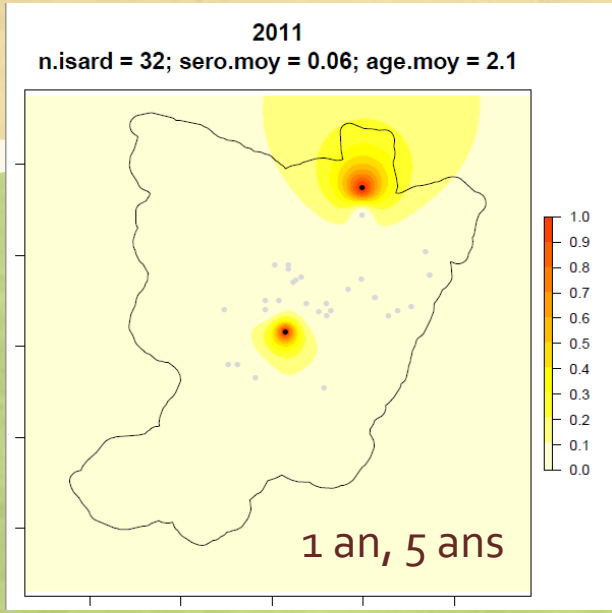


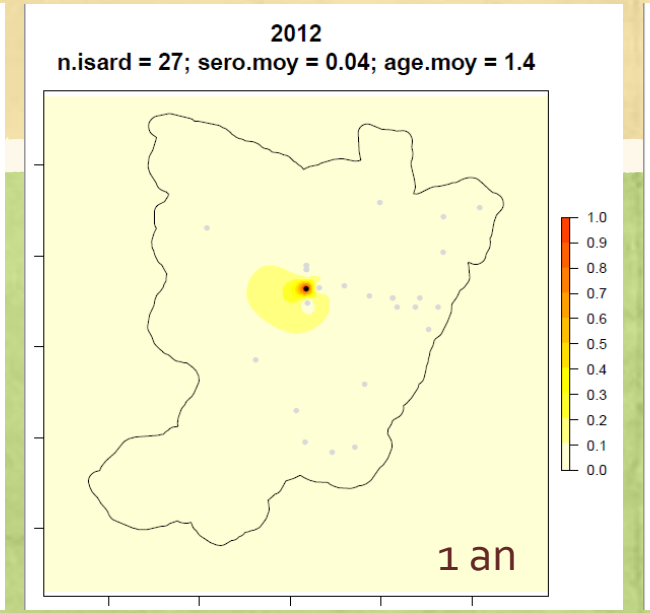


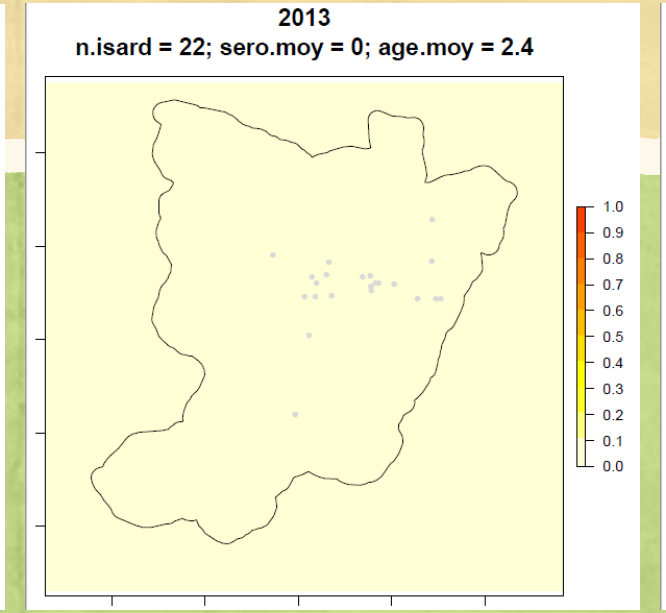


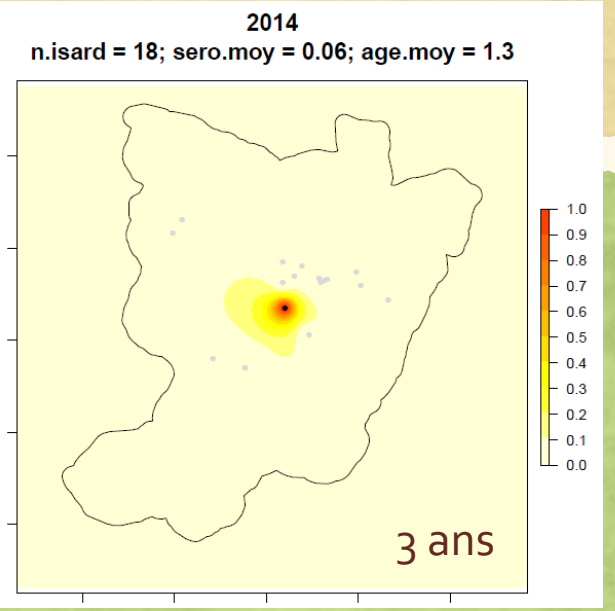


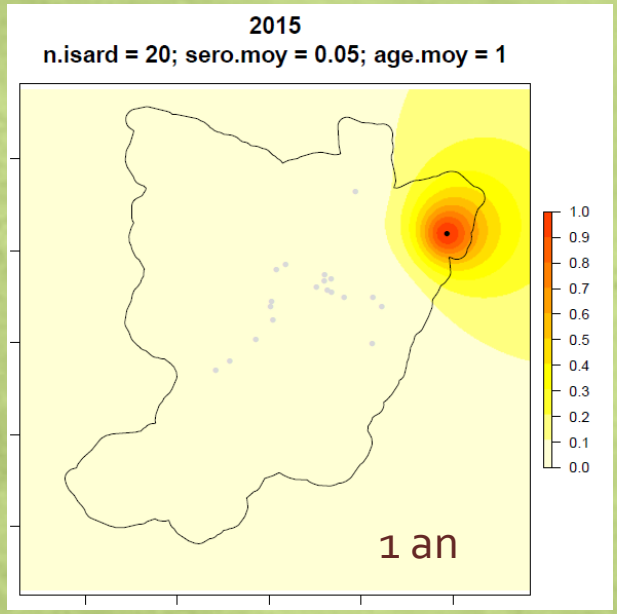
Après l'extinction: 2011 - 2017

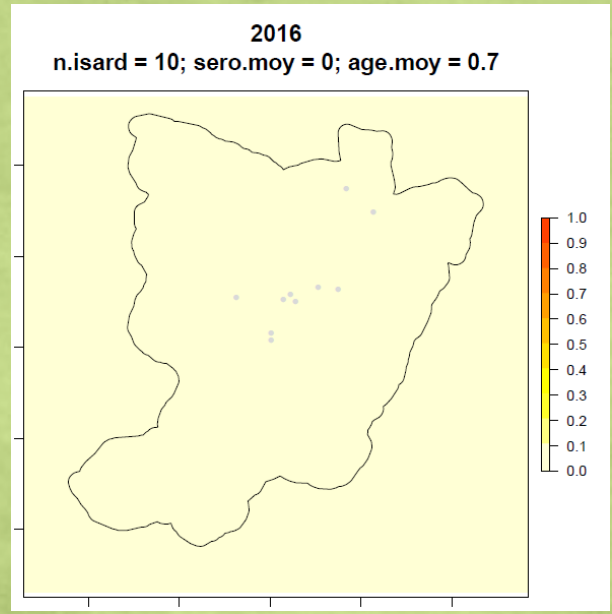


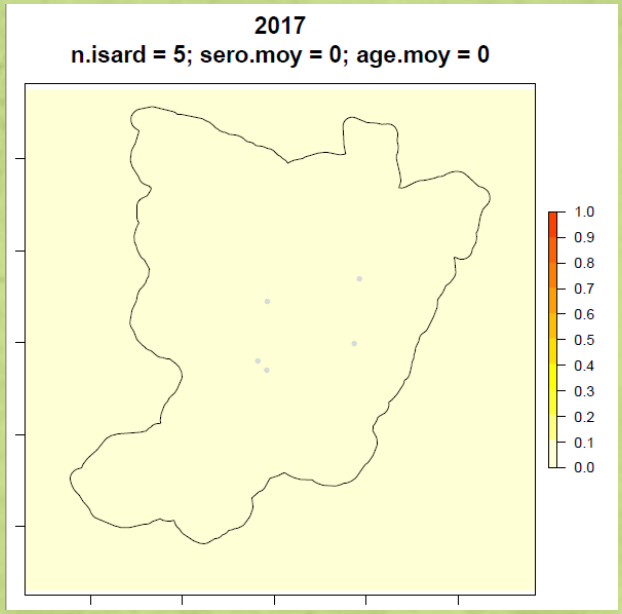








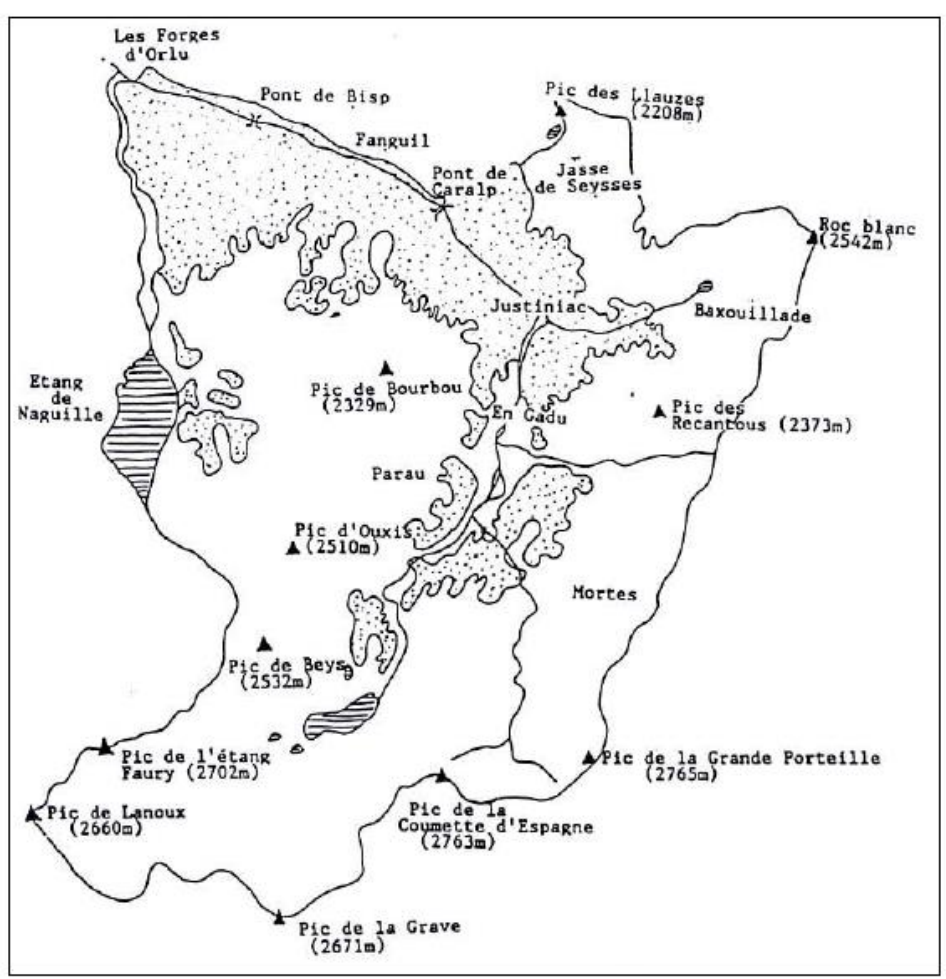


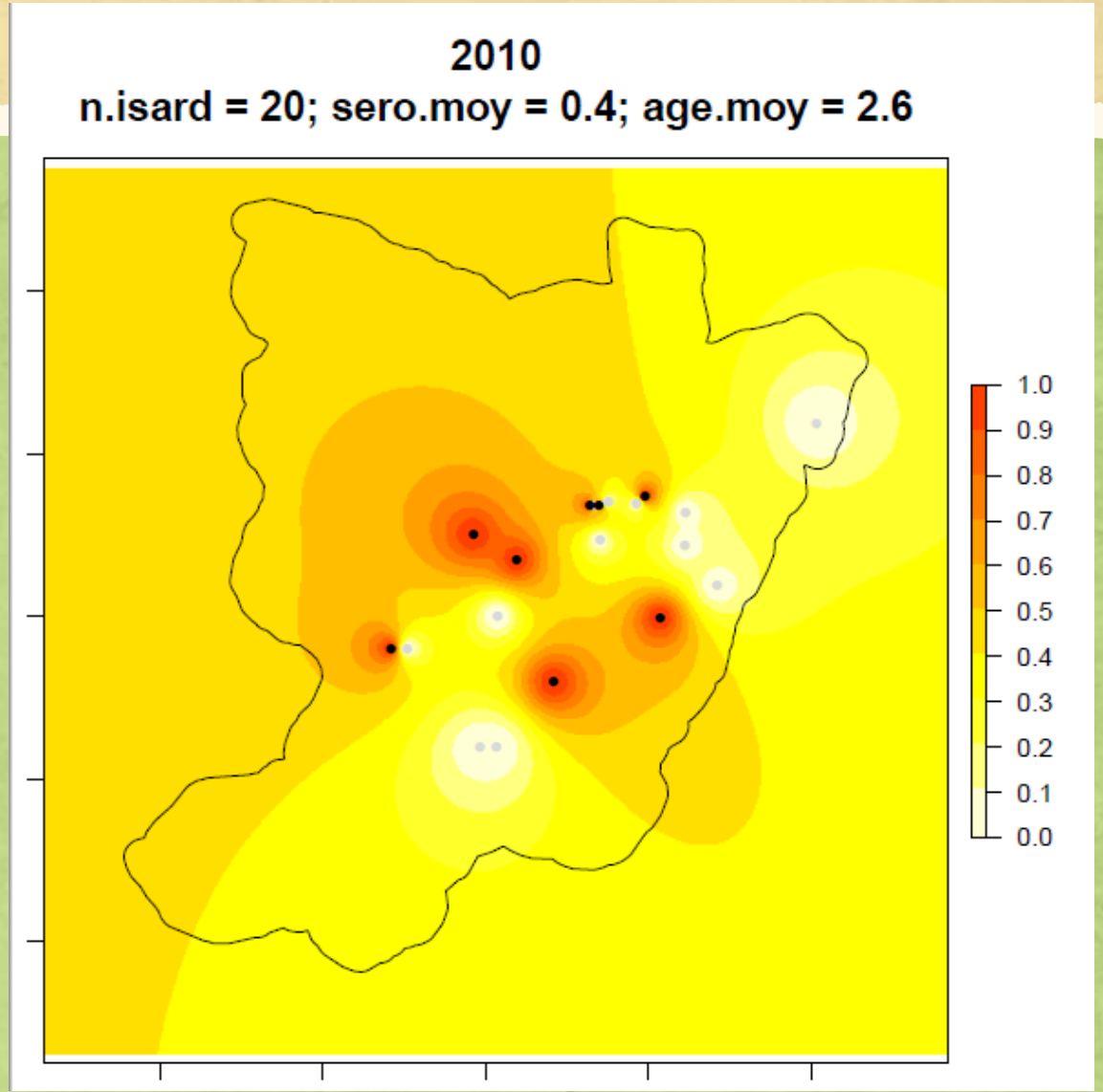


Circulation dans le massif jusqu'à au moins l'hiver 2015-16

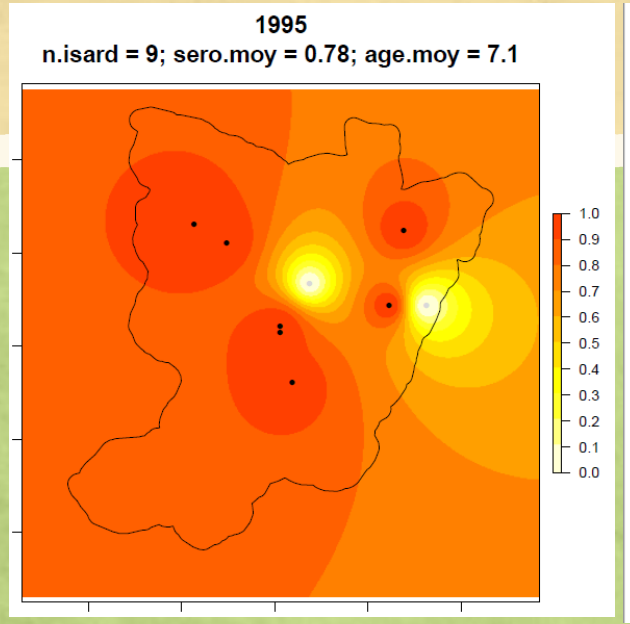
2010, année charnière

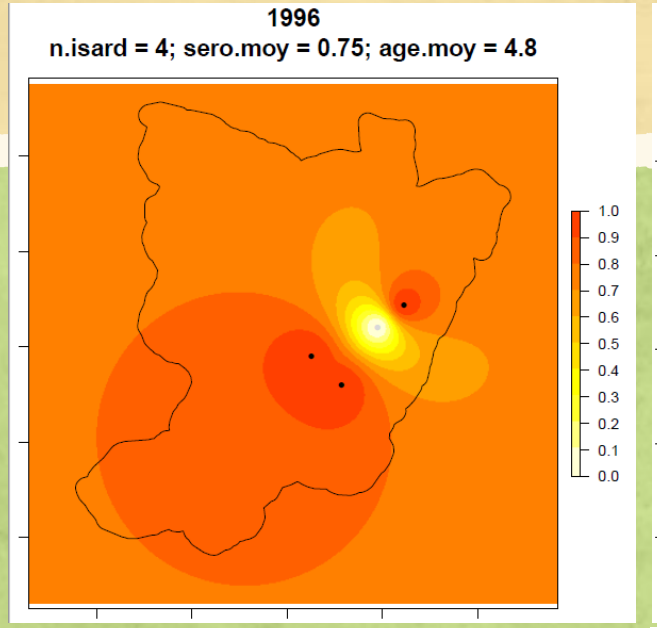
Extinction par le versant est?

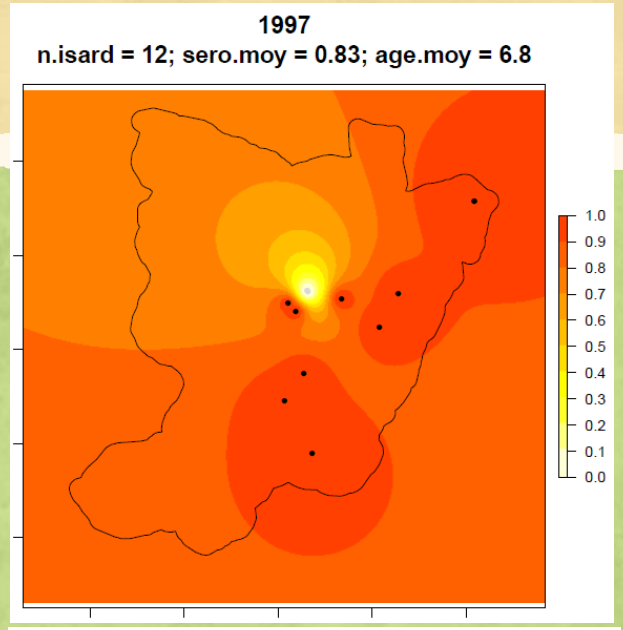


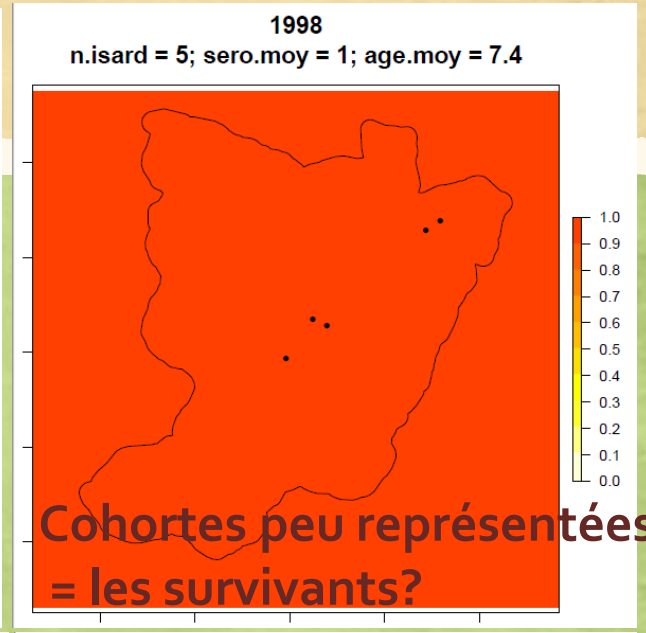


Et avant? 1995 - 2002

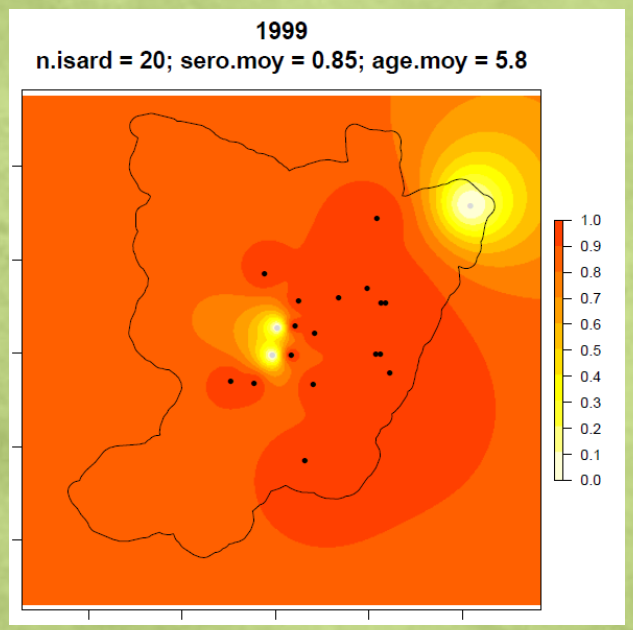


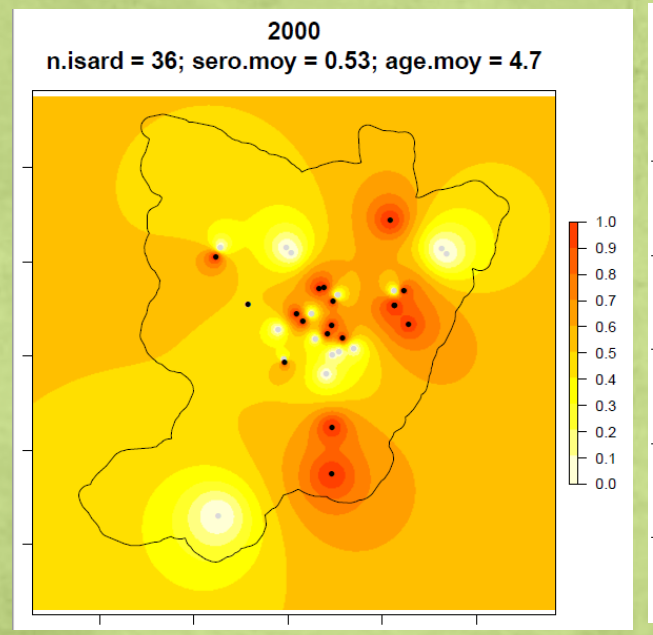


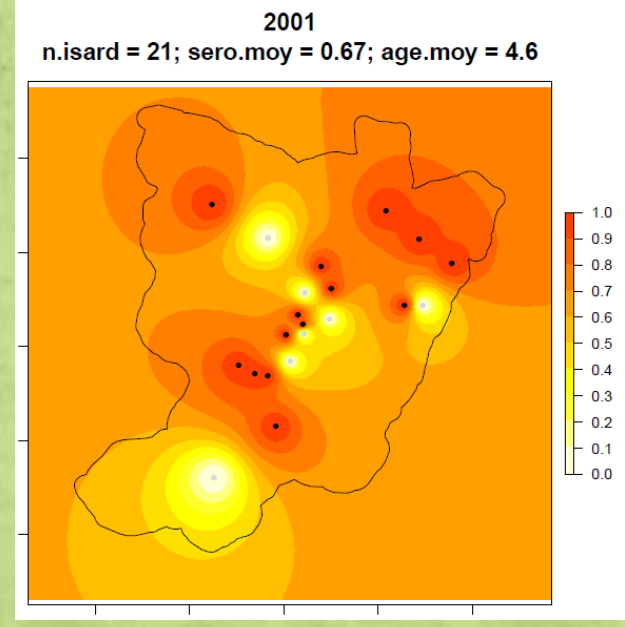


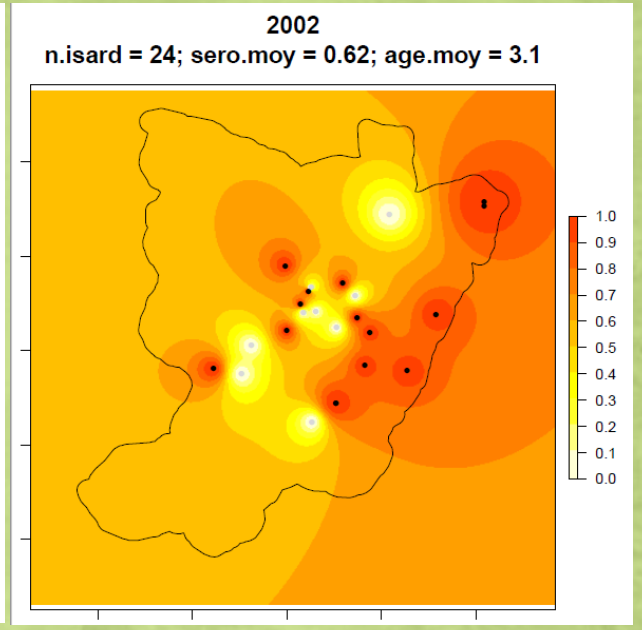


Cohortes peu représentées
= les survivants?

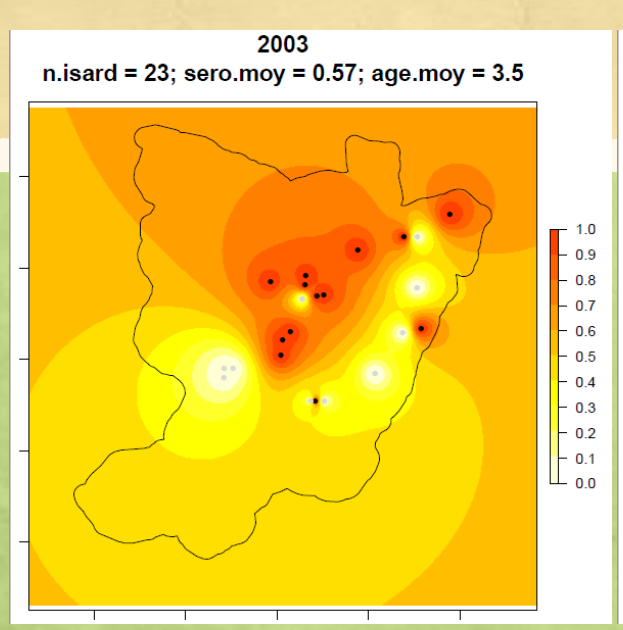


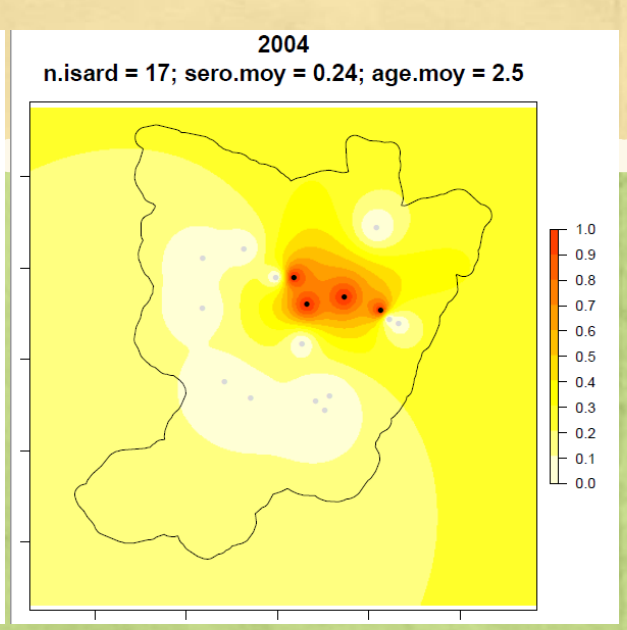


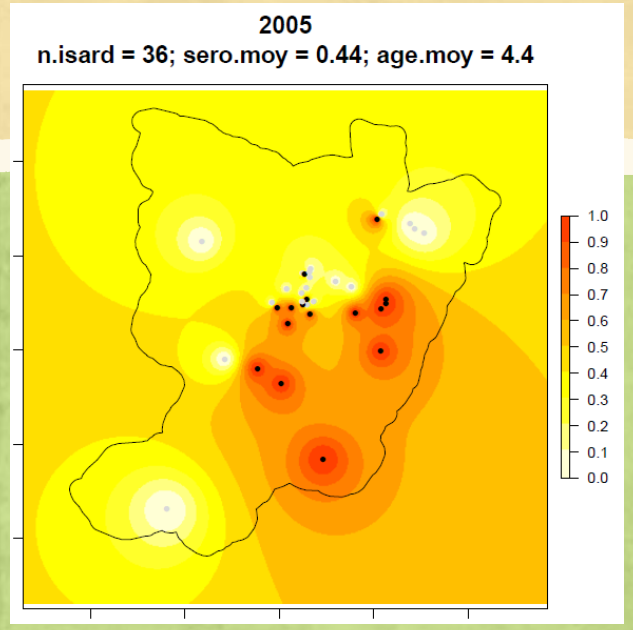


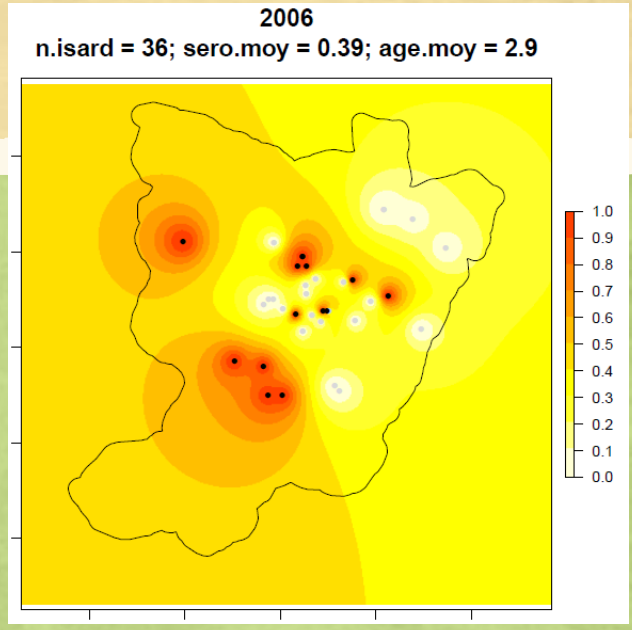


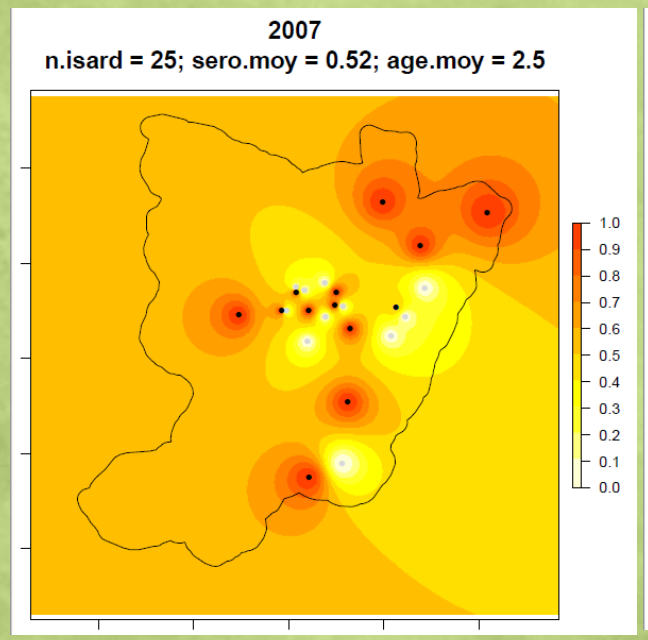
Et avant? 2003 - 2010

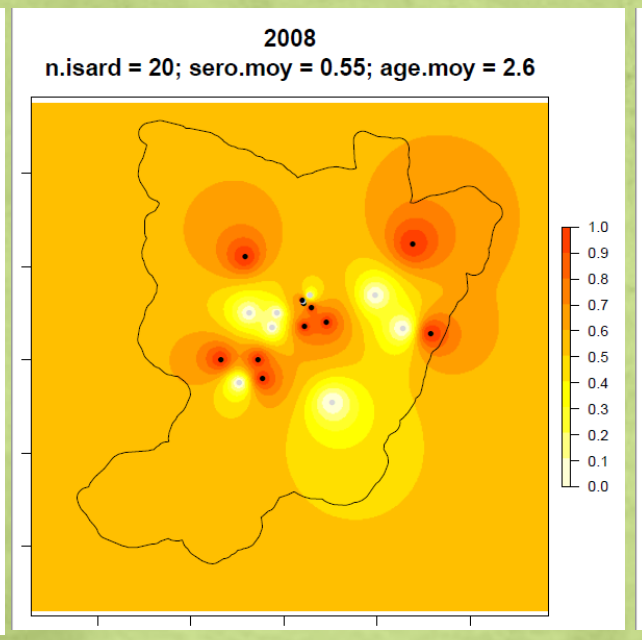


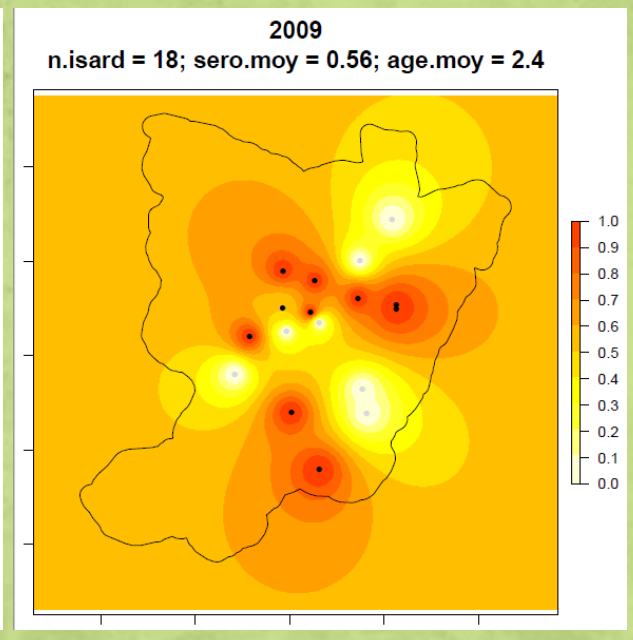


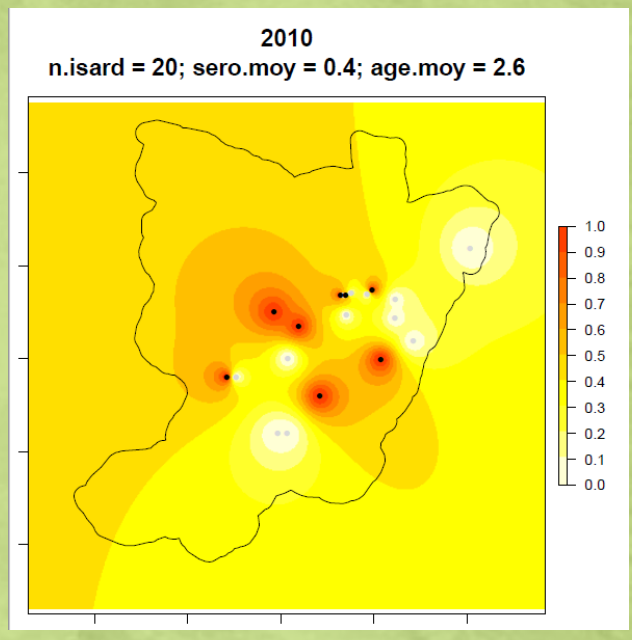




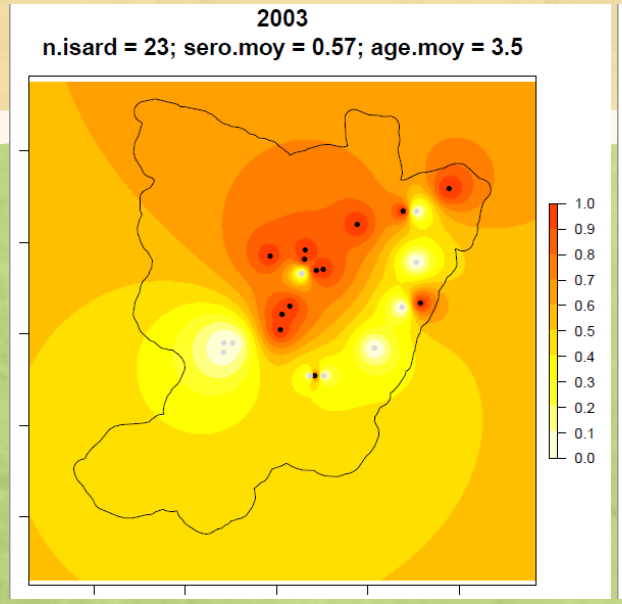


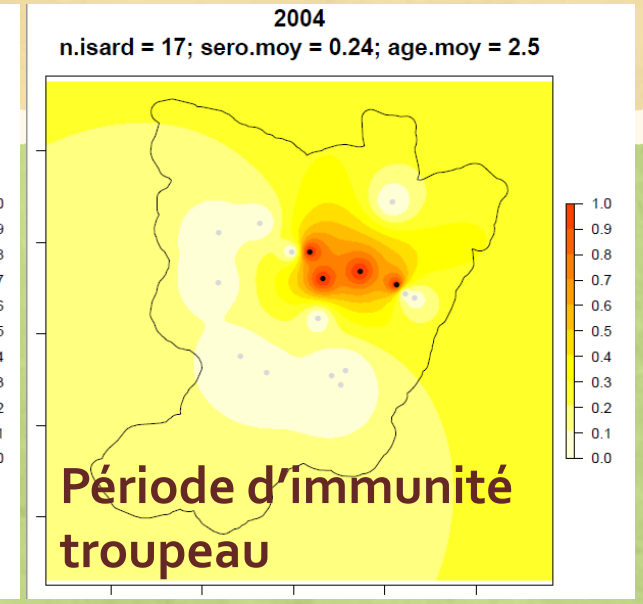


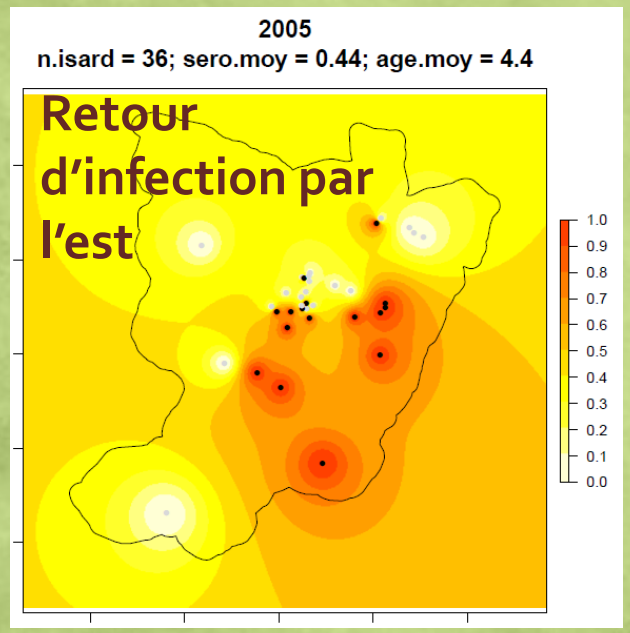


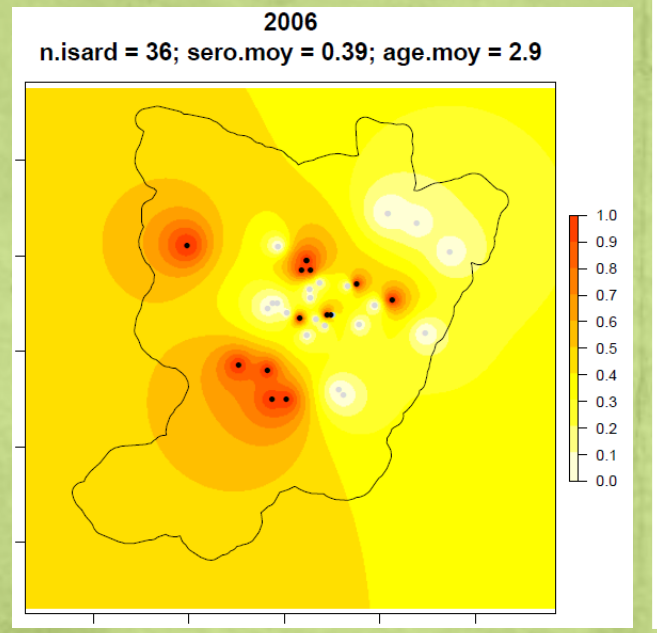


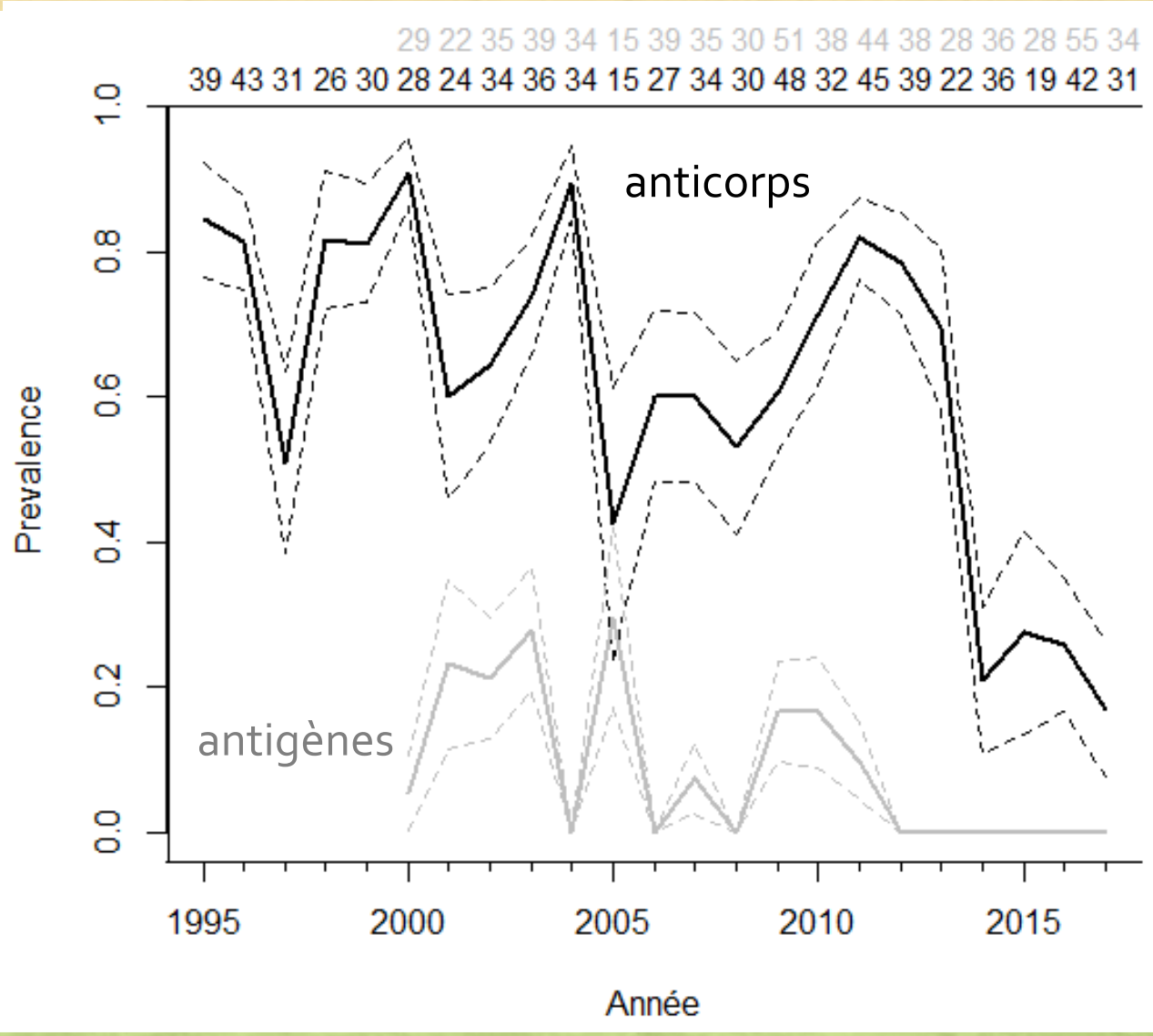
2003 – 2006, période de structuration spatiale











Conclusions

Scénario d'extinction

- Extinction dès fin 2011, signal sérologique en 2014
- Extinction par le versant est dès 2010 puis ouest en 2011?
- Extinction partielle en 2004

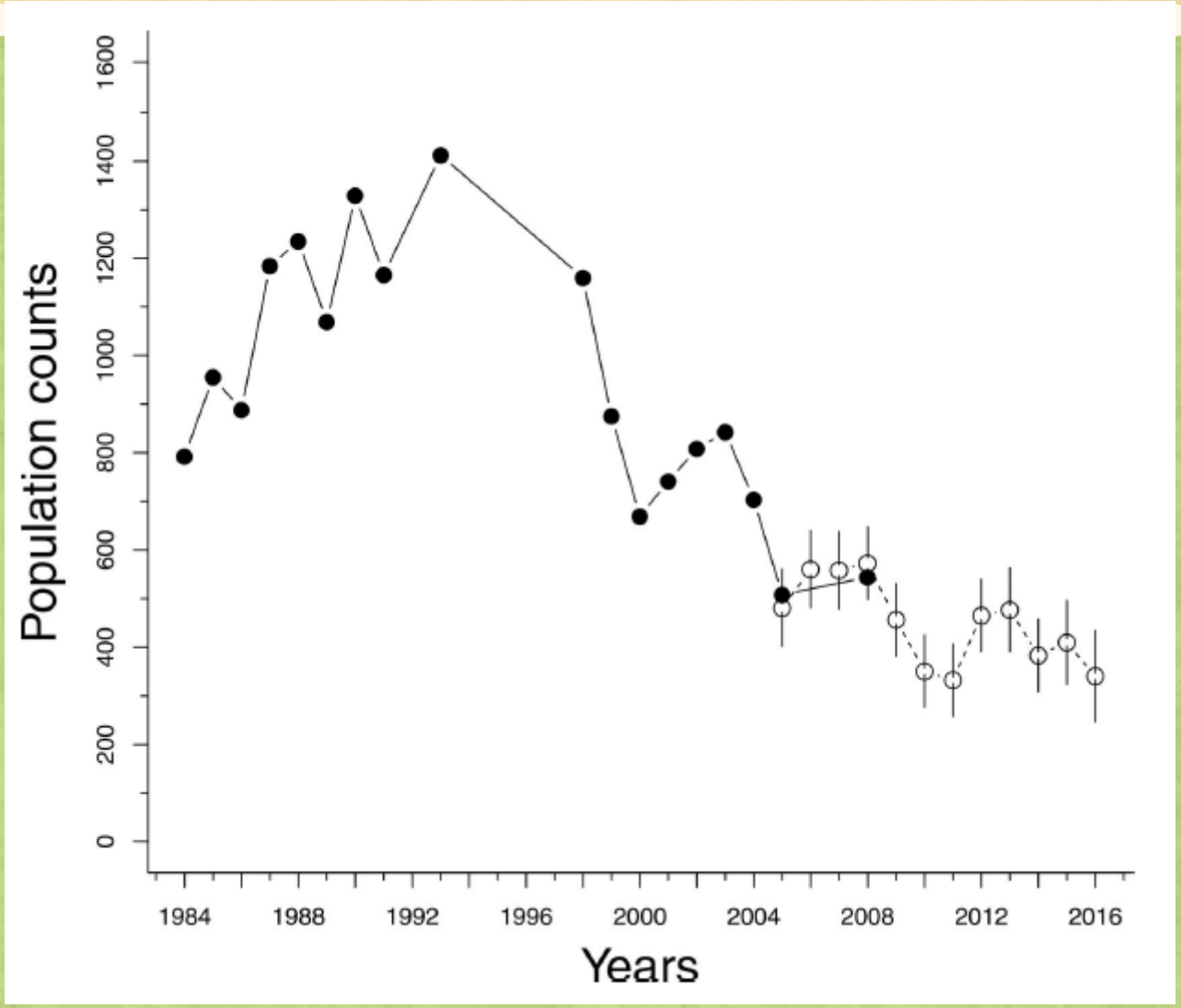
Et maintenant

- Infection encore présente à proximité jusqu'à l'hiver 2015-16 au moins, Risque de réintroduction du virus

Et la population?

- À suivre…

- Histoire:
- Gilot-Fromont et al. 2018 Journal of Wildlife Diseases



Merci!