

Understanding the dynamics of emerging zoonotic agents in the Camargue



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ISEM – CNRS – <https://www.giacomozilioevo.com>

<https://www.zacam.cnrs.fr/en/project/zoocam>

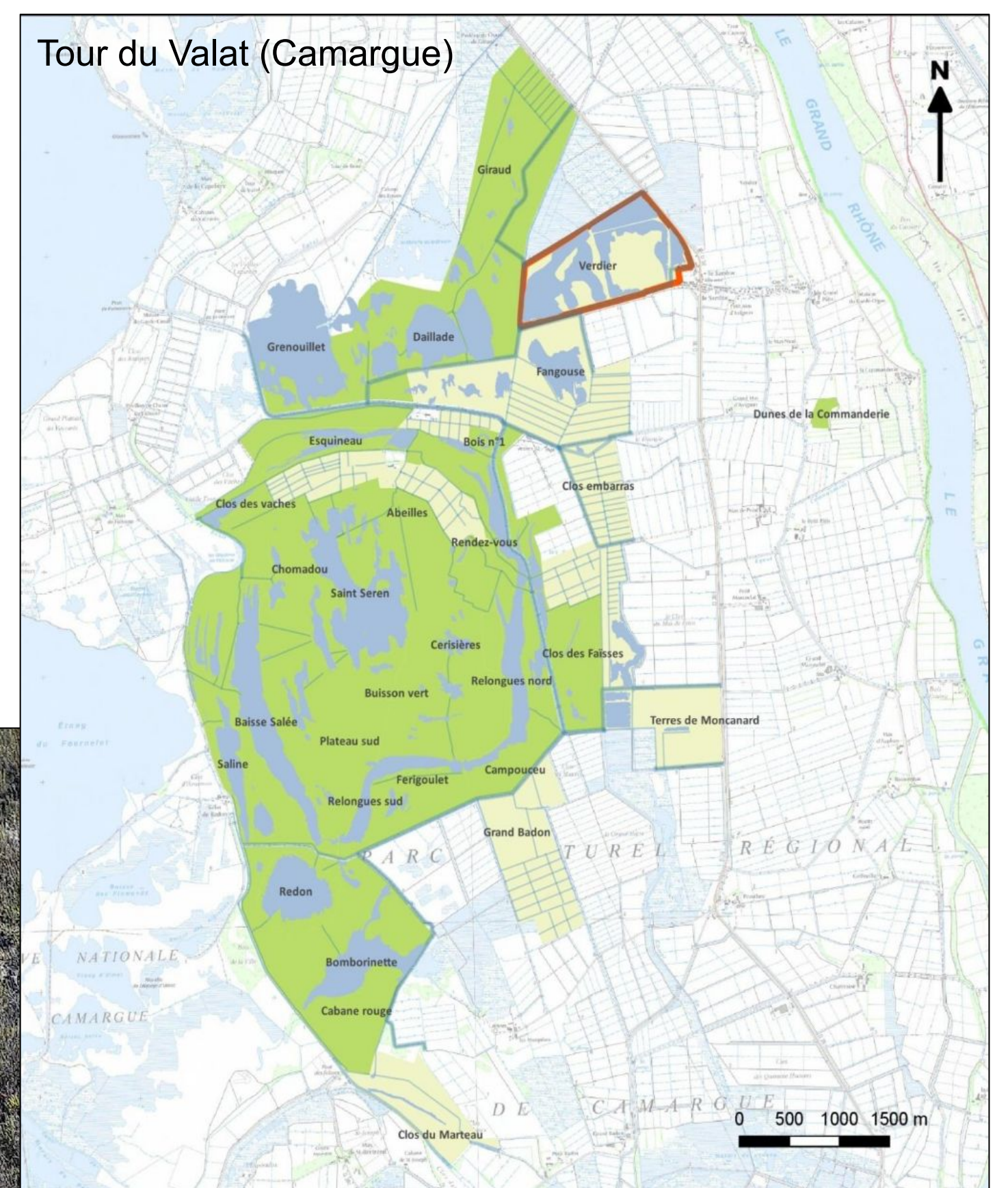
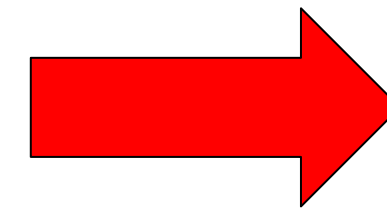


How does global change influence zoonosis risk?

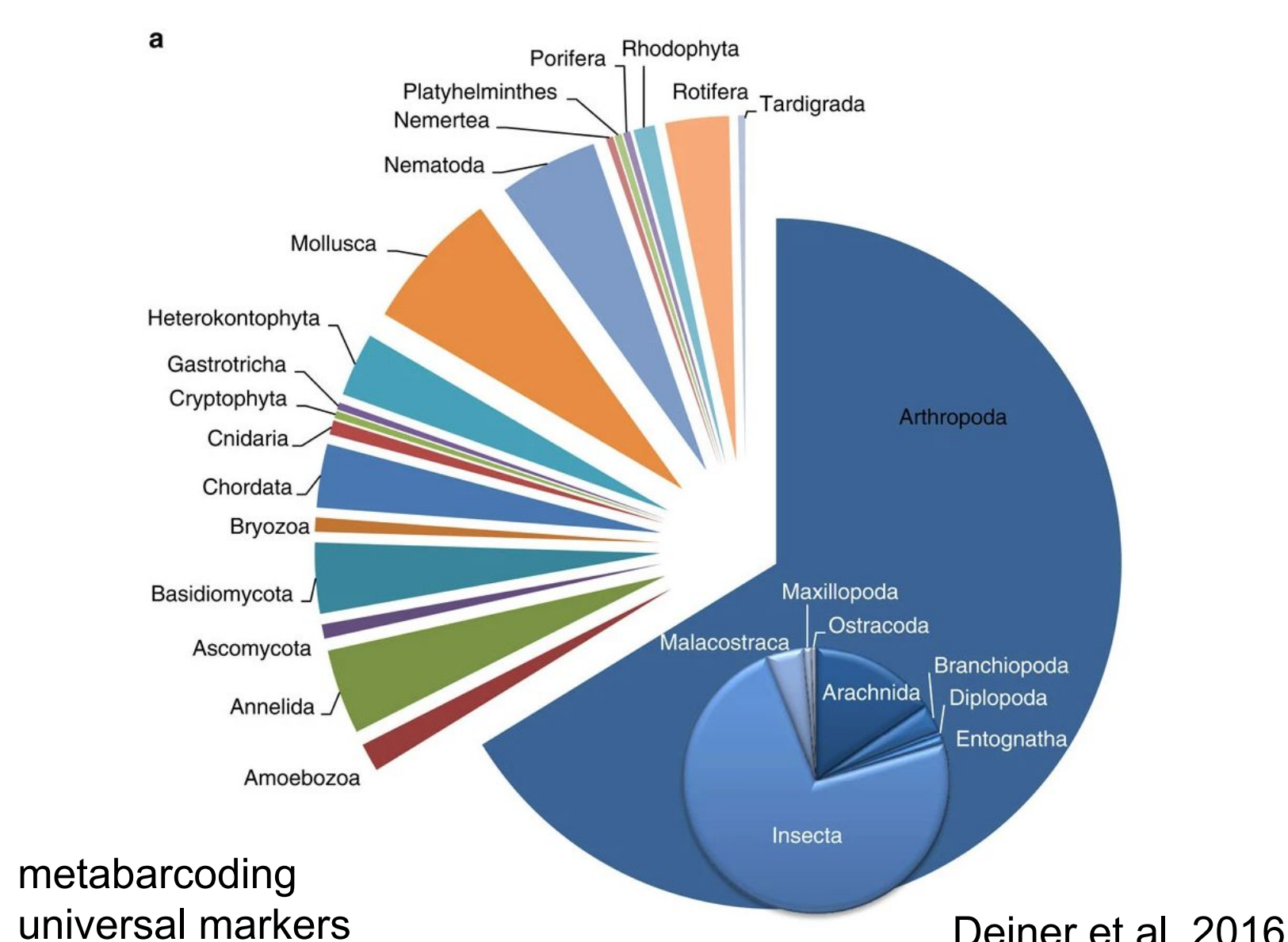
Increasing temperatures and other environmental stressors, such as salinity or pollutants, can impact pathogen transmission and exacerbate the risk of emerging infectious disease. Yet, we have limited understanding of how these global change conditions affect the circulation of infectious agents, what reservoirs they have and what are the risks of exposure for humans and animals.

The aim of this project, is to gain understanding of how pathogen dynamics play out in nature, investigating the evolution of zoonotic diseases as a function of ecological dynamics and interactions between animal species and their environment.

Disease dynamics
Field work
eDNA & GIS
Global change
Local adaptation



Land-use
Abiotic factors
Ecosystem functioning
Environmental changes



The Camargue is an ecosystem that is conducive to the emergence of zoonotic diseases. We will use the Camargue Mediterranean vernal pools as test beds for our predictions. Data will be collected using limnological field work combined with environmental DNA (eDNA). Disease dynamics will be analysed in explicit space (GIS mapping) and explained using biotic, but also abiotic variables, such as land use and ecosystem functioning.