



The DeerPal project: humans and deer during the Palaeolithic, integrating the variability of prey ecology and ethology in the investigation of past human – environment interactions

Emmanuel Discamps, William Rendu, Aurélien Royer, Priscilla Bayle, Cédric Beauval, Emilie Berlioz, Olivier Bignon-Lau, Kate Britton, Ariane Burke, Jean-Christophe Castel, et al.

► To cite this version:

Emmanuel Discamps, William Rendu, Aurélien Royer, Priscilla Bayle, Cédric Beauval, et al.. The DeerPal project: humans and deer during the Palaeolithic, integrating the variability of prey ecology and ethology in the investigation of past human – environment interactions. Prehistoric Adaptations to Cold Environments: multidisciplinary approaches, Jan 2019, Nice, France. hal-02012860

HAL Id: hal-02012860

<https://hal.science/hal-02012860>

Submitted on 9 Feb 2019

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Context and general objectives

- Climate change is a large threat for arctic ecosystems, and more particularly for reindeer/caribou populations
- Natural dynamic response of cervid ecosystems to climate change can be hard to discern (e.g. most habitats have already been affected by human activities)
- Extant ecological niches currently observable for endangered wild species do not correspond to the full extent of their adaptive capacities
- In the past, environmental changes & marked shifts in Palaeolithic societies (e.g. toolkits, subsistence, territorial organisation) have been observed
- Late Pleistocene records = opportunity to investigate the response of wild animals and human populations to environmental change in the long-term

DeerPal > acquire new knowledge on the (palaeo)ecology of animal communities facing climate changes
> increase our understanding of how human societies coped with these changes in the past

Two target species



Reindeer (*Rangifer tarandus*)



Red deer (*Cervus elaphus*)

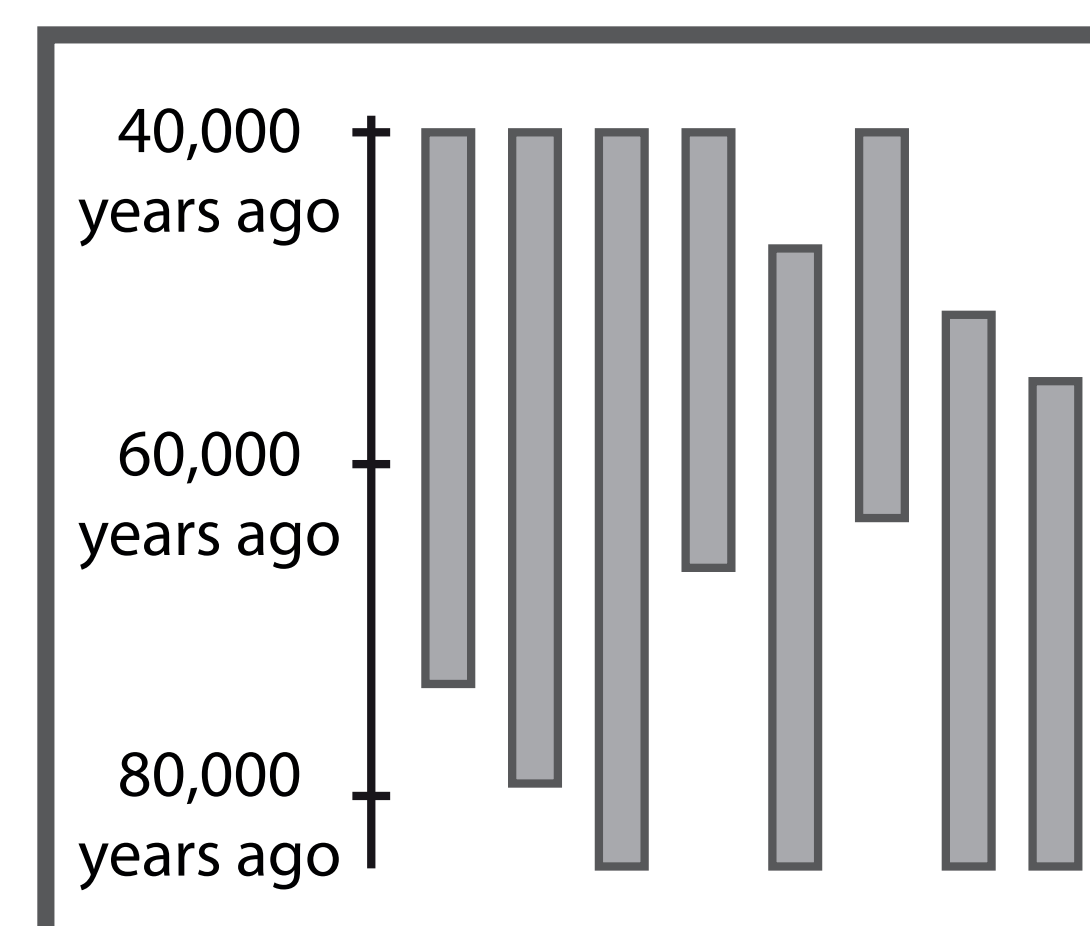
> Past variability in cervid niches and behaviours?

- Key resources for past hunter-gatherers
- Behaviourally and ecologically plastic
- Often complementary (one thrives when the other crashes)

Two time periods

Middle Palaeolithic

MIS 5-3, 100 to 40 ka cal. BP
SW France

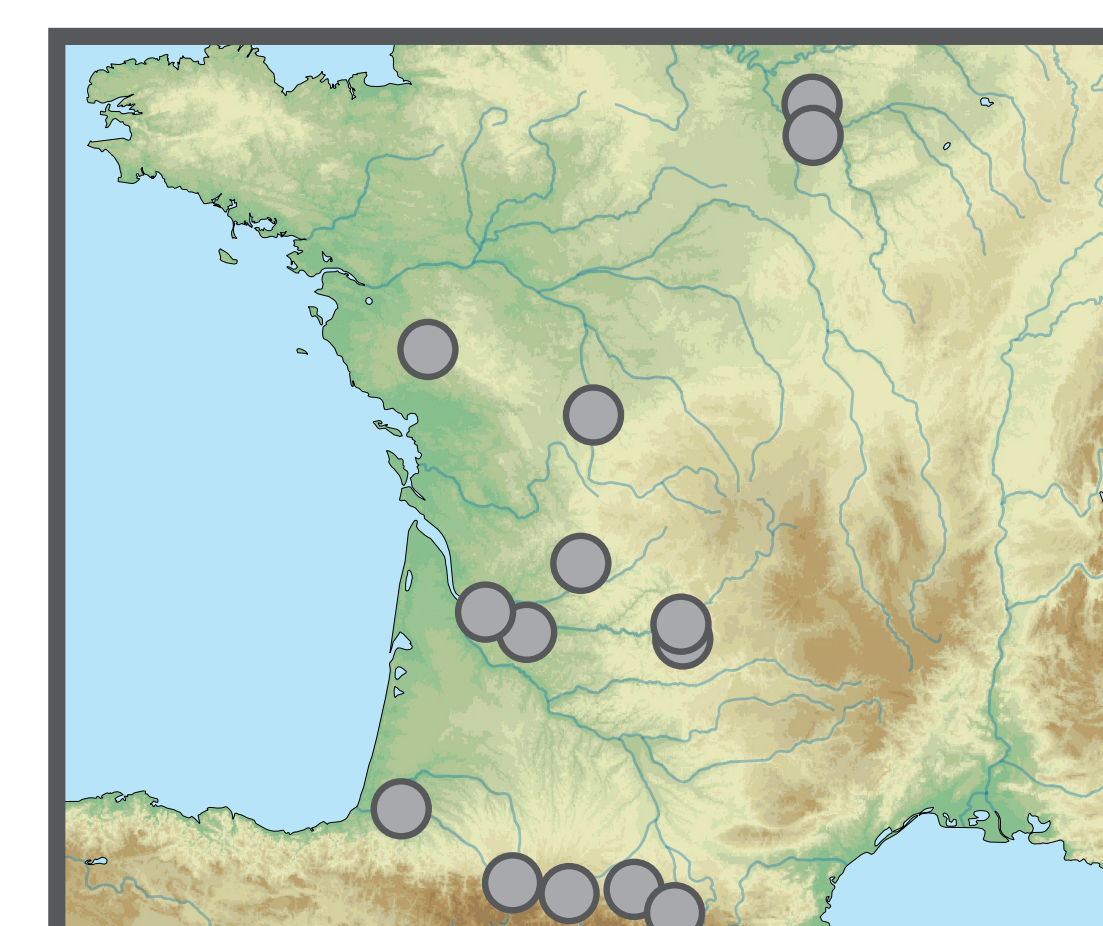


> Long stratigraphies
A deep-time perspective

- Multiple climatic changes
- Key innovations (e.g. Quina)

Late Glacial

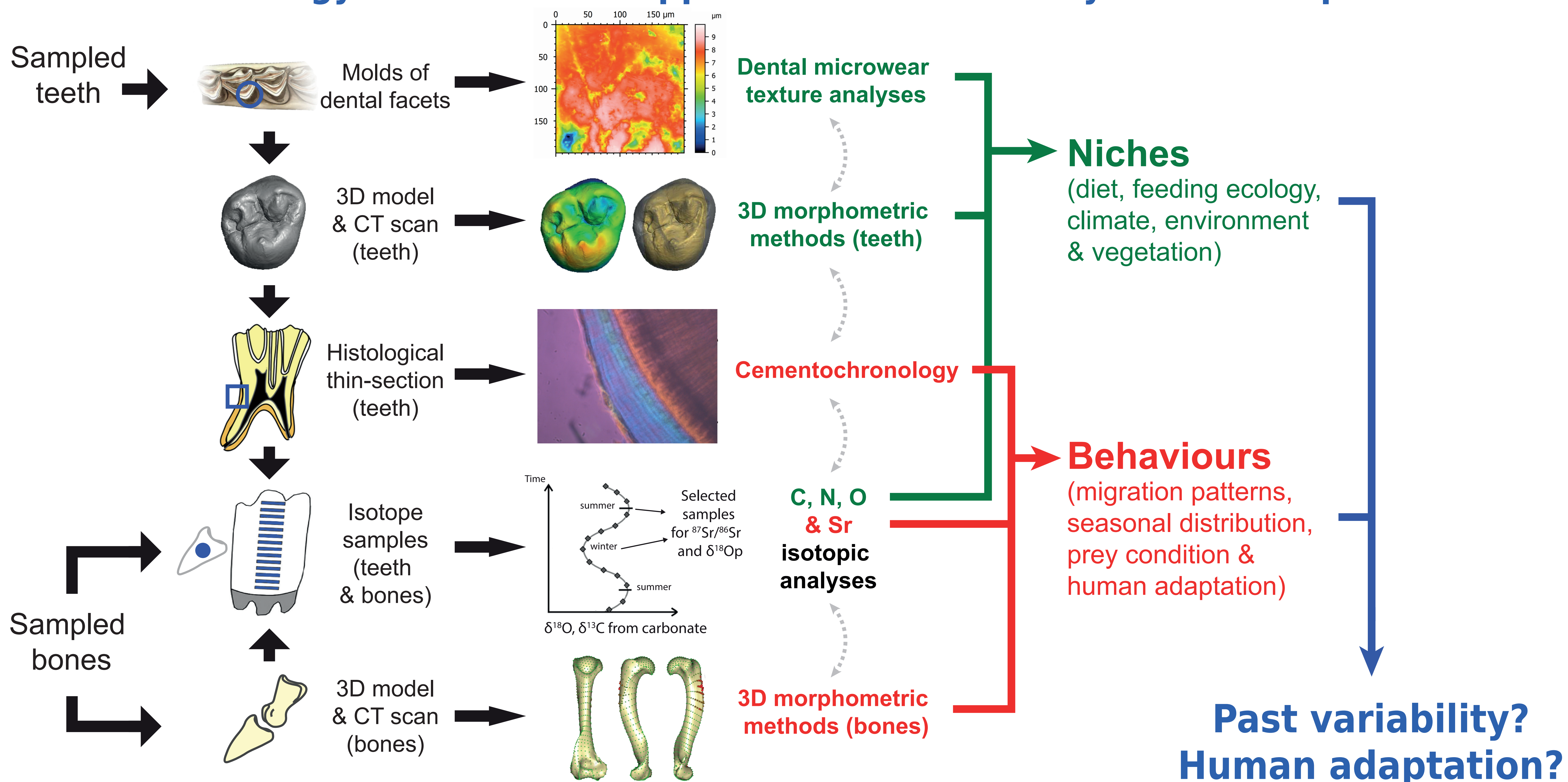
MIS 2, 16 to 12 ka cal. BP
Paris Basin to Pyrenees



> Large geographical scale
The last reindeer hunters

- Climate warming & reindeer extirpation
- altitudinal migration in the Pyrenees?

Methodology: simultaneous applications of four analytical techniques



Contact us at: ediscamps@gmail.com