## Dendro-antracological approaches appled to Mesolithic contexts in NE Iberia: the exploitation of Montane Pinewoods

Marta Alcolea\* $^{\dagger 1,2}$  and Alexa Dufraisse<sup>3</sup>

<sup>1</sup>Universidad Autónoma de Barcelona, Departamento de Prehistoria – Spain
<sup>2</sup>Muséum national dHistoire naturelle (MNHN) – UMR 7209, CNRS, MNHN, Paris – 57, rue Cuvier - 75231 Paris Cedex 05, France

 $^3$ Muséum national d Histoire naturelle (MNHN) – CNRS UMR 7209 AASPE – 57, rue Cuvier - 75231 Paris Cedex 05, France

## Abstract

This work focuses on the reconstruction of firewood exploitation strategies during the Mesolithic-Neolithic transition in NE Iberia. The study is based in the measurement of dendro-anthracological parameters, as minimum diameter and growth rate, in montane pine (*Pinus sylvestris* tp.) wood charcoal fragments from archaeological contexts which reaches around 90% of the studied assemblages (Alcolea, 2017). Pith location tool (Dufraisse et al., 2020) and dendrometry by image analysis software combined with modern dendrological reference datasets allows to classify charcoal fragments in 4 groups or anthraco-types (Dufraisse et al., 2018). First results suggest the exploitation of both trunks and branches but a high use of small calibres, probably related to the gathering of natural pruning produced by conifer trees. The studied archaeological sequences barely show differences in the human management of forest resources by the last hunter-gatherers and the first farmers in seasonal occupations in rock-shelters.

Alcolea, M. (2017). University of Zaragoza. Unpublished PhD Dissertation.

Dufraisse, A. et al. (2018). Quaternary International, 463, 232-249. Dufraisse, A. et al. (2020). Journal of Archaeological Sciences: Reports, 29, 102-166.

**Keywords:** Dendro, antracological tools, wood charcoal analysis, athraco, typology, fuelwood exploitation, Pinus tp. sylvestris

<sup>\*</sup>Speaker

<sup>&</sup>lt;sup>†</sup>Corresponding author: martaalcoleagracia@gmail.com