



ID de aportación : 17

Tipo: Oral

## TaphonomyR: An open-source R package for data analysis and visualization for quantitative taphonomy

In the fields of paleontology and archaeology, quantitative taphonomy plays an important role in deciphering the interplay between different agents including human activities, carnivores and other natural processes on skeletal remains.

Despite the critical insights it offers, the field faces challenges including a lack of standardized data preparation, protocols and difficulties in reproducibility of results.

By combining data science techniques with taphonomic theory, our goal is to provide a tool that will aid in the understanding of taphonomic processes and improve and streamline the analysis of hominin and faunal remains. “TaphonomyR” facilitates data standardization and exploration, modeling and visualization for skeletal part abundance, bone density and breakage patterns data.

The strength of the ‘TaphonomyR’ package lies in its integrated dataset of archaeological sites, which facilitates comparative studies and enhances our understanding of new findings in relation to established categories of archaeological sites, particularly through its accompanying user-friendly Shiny App.

“TaphonomyR” not only advances archaeological research but also fosters interdisciplinary collaboration, setting a new standard for reproducibility, methodological rigor, and open science in archaeology and paleontology.

### ¿Presentas la comunicación a premio?

Premio estudiante (grado, máster, doctoral)

### Afiliación (del autor)

Centro Nacional de Investigación sobre la Evolución Humana (CENIEH)

**Autor primario:** GRABBE, Jonas

**Coautores:** Dr. CANEPA-ONETO, Antonio (Universidad de Burgos); Dr. SERRANO-MAMOLAR, Ana (Universidad de Burgos); Sra. PANTOJA-PÉREZ, Ana (CENIEH); Dr. GARCÍA-OSORIO, César (Universidad de Burgos); Dr. SALA, Nohemi (CENIEH)

**Presentador:** GRABBE, Jonas

**Clasificación de la sesión:** Sesión premio predoctoral

**Clasificación de pistas:** Ciencias naturales