#### **Location** The Las Hoyas site is located near Cuenca, Spain in the La Huérguina Formation of the Iberian Ranges.



## Fossils

Las Hoyas is a Lagerstätten site, meaning it has a large number of wellpreserved fossils. Notably, many different species of amphibians, mammals, crocodyliformes, and ornithodirans (a group that includes dinosaurs, pterosaurs, and birds) have been found. Here are just a few.

Iberomesornis (ornithodiran)





Fig. 3: Durbed.

Fig. 4: Mazzatenta, L. (Iberomosornis)

Bernissartia (crocodyliformes)

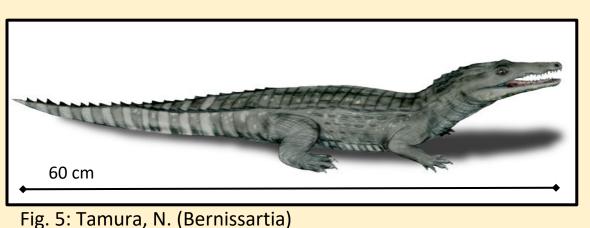




Fig. 6: Mazzatenta, L. (Cretaceous crocodile)

# Las Hoyas

#### Paleoenvironment

The Las Hoyas site was an inland lake environment, home to many aquatic as well as land plant life.

## **Geologic Age**

The La Huérguina Formation where Las Hoyas is found has a geologic age range from 129.4 to 126.3 Ma.



Fig. 7: Buscalioni, A. D.



The Museo de las Ciencias de Castilla-La Mancha: Wikipedia

#### Researchers

The Las Hoyas site has been extensively researched by researchers from the Universidad Autonoma de Madrid, the Universidad Complutense de Madrid, and the National University of Distance Education. The Museo de las Ciencias de Castilla-La Mancha has helped with further research and the collection of fossils from the site.

## **Collection History**

The Museum features a collection of the fossils from the site as one of their main attractions in an exhibit called Los Tesoros de la Tierra which translates to "treasures of the Earth."

#### Importance

Las Hoyas is an exceptional fossil Lagerstatte that has recorded a wide array of species of diverse plant and animal taxa. The site is also known for its conservation of the fossils for enantiornithines dinosaurs.



Fossil specimen of *Iberomesornis* 125 Ma

### Geology

The geologic makeup of the Lagerstatten allows for well preserved fossils due to a number of factors. Microbial mats preserve soft tissue due to the iron carbonate depositions. Abruption in the formation allows for geologists to analyze the formation.



## GEOL 204 The Fossil Record

Spring 2020 Section 0101

Daniel Boyarsky, Noor Nabulsi, Alyssa Pryputniewicz & Elijah Webb