# Article information:

A new spinosaurid dinosaur species from the Early Cretaceous of Cinctorres (Spain) | Scientific Reports
<https://www.nature.com/articles/s41598-023-33418-2>

# Article summary:

1. A partial right maxilla and five caudal vertebrae of a newly discovered baryonychine spinosaurid named Protathlitis cinctorrensis gen. et sp. nov. were found in the Arcillas de Morella Formation (late Barremian, Cinctorres, Spain).

2. The discovery sheds light on the knowledge of spinosaurid origins and evolution, particularly in Europe where most of the fossils have been found.

3. The ANA site where the fossils were discovered is located in the tectonosedimentary domain of the Linking Zone of the Iberian Range and is composed of red clay, yellowish-white sandstone, grey marl, limestone and locally conglomerate that were deposited in flood plains, estuaries and beaches of a delta during the Early Cretaceous period.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article discusses the discovery of a new spinosaurid dinosaur species, Protathlitis cinctorrensis, from the Early Cretaceous of Cinctorres, Spain. The authors provide a detailed description of the fossil materials and their geological context, as well as a systematic analysis of the new taxon. They also discuss the implications of this discovery for our understanding of spinosaurid evolution and diversity in Spain.

Overall, the article appears to be well-researched and informative. The authors provide a thorough review of previous research on spinosaurids and place their findings in this broader context. They also acknowledge some of the limitations of their study, such as the incomplete nature of the fossil materials and the difficulty in determining taxonomic relationships based on isolated teeth.

However, there are some potential biases or limitations to consider. For example, the authors focus primarily on Western European spinosaurids and do not discuss other regions where these dinosaurs have been found (such as South America or Africa). This may reflect a bias towards European paleontology or simply a lack of available data from other regions.

Additionally, while the authors note that tooth ornamentation may not be a reliable indicator of taxonomic relationships within Spinosauridae, they still rely heavily on dental characters to assign their new taxon to Baryonychinae. It is possible that future discoveries could challenge this classification based on more complete skeletal materials.

Finally, it is worth noting that there is some promotional content in the article related to Villarreal C.F., a Spanish football club. The new genus name for Protathlitis appears to be a reference to this club's recent success in winning the UEFA Europa League title. While this does not necessarily detract from the scientific content of the article itself, it may raise questions about potential conflicts of interest or biases among its authors.

Overall, however, these limitations do not significantly detract from the value of this article as a contribution to our understanding of spinosaurid evolution and diversity. The authors provide a detailed analysis of their new taxon and its implications for the broader field of paleontology, while also acknowledging some of the uncertainties and limitations inherent in this type of research.

# Topics for further research:

* Spinosaurs in South America
* African spinosaurid diversity
* Skeletal materials of spinosaurids
* Tooth ornamentation in dinosaur classification
* Potential conflicts of interest in paleontology research
* Early Cretaceous paleontology in Spain

# Report location:

<https://www.fullpicture.app/item/7d33e03577f4e83d6e3b18d6226b41b4>