

1 INTRODUCTION & AIM

The Paraíba-Pernambuco Basin in Northeastern Brazil hosts a diverse Mesozoic chondrichthyan fauna and played a key role in the South Atlantic's geological evolution, being one of the last areas to separate during Gondwana's breakup.

This study provides an anatomical and taxonomic redescription of the basin's chondrichthyans, focusing on dentition and its morphological variation.

2 METHOD

A total of 128 fossil chondrichthyan teeth from the Itamaracá, Gramame, and Maria Farinha formations were examined, including specimens previously described in earlier studies. Anatomical and taxonomic evaluations were based on features such as cusp angle, number of accessory cusps, crown shape and size, serrations, and overall proportions.

Comparisons with living species were also used to infer the original position of each tooth within the jaw.

3 RESULTS & DISCUSSION

Original taxonomy:

1 *Notidanus microdon*

2 *Odontaspis tingitana*

3 *Genus Lamna*

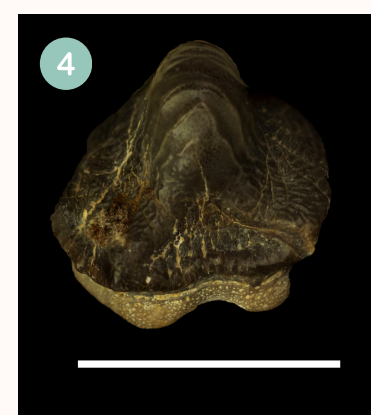
4 First description of *Ptychodus whipplei* from South America

Current reclassification:

Hexanchus microdon

Carcharias tingitana

Genus Cretolamna



Scale = 1 cm

4 CONCLUSION

The findings underscore the value of integrating fossil and living morphological data to refine taxonomic identifications. Moreover, the Paraíba-Pernambuco Basin is reaffirmed as a key fossil locality for elucidating elasmobranch diversity and biogeography during the Mesozoic. This study contributes valuable insights for future taxonomic and paleoecological investigations in the region.

5 REFERENCES

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