

# 15<sup>th</sup> Congress of the RCMNS

Regional Committee on Mediterranean Neogene Stratigraphy

## Exploring a “physical laboratory”: the Mediterranean Basin

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HELLENIC REPUBLIC  
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University of Athens



Regional Committee on Mediterranean  
Neogene Stratigraphy



Geological Society  
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Palaeontology-Stratigraphy



Hellenic Sedimentological  
Association



Geotechnical Chamber  
of Greece

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## MESSINIAN FISH OTOLITH ASSEMBLAGES FROM CRETE AND ZAKYNTHOS ISLANDS

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We reconstruct the Messinian fish fauna of the eastern Ionian Sea and the south Aegean Sea before the salinity crisis based on the otolith record from four sections: Kalamaki (Zakynthos Island) and Kapariana, Faneromeni, and Potamida (Crete Island). In Kalamaki section, we identify the following taxa: Gonostomatidae indet., *Maurolicus muelleri*, *Vinciguerria poweriae*, *Ceratoscopelus maderensis*, *Diaphus cavallonis*, *Diaphus* cf. *pedemontanus*, *Diaphus rafinesquii*, *Diaphus rubus*, *Diaphus taaningi*, *Myctophum coppa*, and *Physiculus* aff. *huloti*, *Gadiculus argenteus*, *Gadiculus labiatus*, Gobiidae, *Lepidopus caudatus*, *Buglossidium* sp. The Kapariana section Messinian sediments reveal *Benthoosema suborbitale*, *Diaphus befralai*, *Diaphus splendidus*, *Diaphus acutirostrum*, *D. cavallonis*, *D. rubus*, *Myctophum fitchi*, and *Bregmaceros albyi*. The Messinian sediments in Faneromeni section include otoliths of *B. albyi*, *D. cavallonis*, *Lobianchia dofleini*, *M. fitchi*, *Deltentosteus* aff. *quadrimaculatus*, *D. rubus*, *Diaphus splendidus*, *Lesueurigobius friesii*, *Rhynchoconger pantanellii*, *Hygophum hygomii*, and “Gobiida” aff. *bicornuta*. Finally, the Messinian sediments in Potamida section include *B. suborbitale*, *C. maderensis*, *H. hygomii*, *Lampadena dea*, *Lampanyctus latesulcatus*, *L. dofleini*, *M. fitchi*, *Notoscopelus elongatus*, *Scopelopsis pliocenicus*, *G. labiatus*, *Scopelogadus* sp., *Pagellus* cf. *acarne*, *D.* aff. *quadrimaculatus*, *L.* aff. *friesii*, *Pomatoschistus* sp., and ?*Mesogobius* sp.

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