

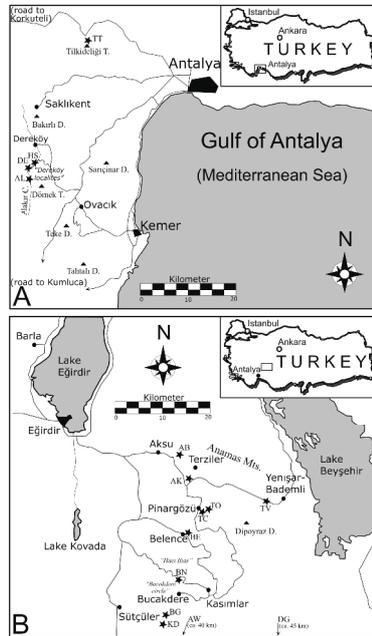
# Hypercalcified Inozoan Sponges from the Norian Reef Carbonates (Cipits) of Turkey

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Hypercalcified sponges, including the chambered “Sphinctozoans”, un-chambered “Inozoans”, Chaetetids and Spongiomorphid-like representatives are the most abundant reef builders in Norian reef boulders in several localities in the Taurus Mountains, southern Turkey. Numerous samples, containing hypercalcified sponges and other reef organisms were collected from these reef boulders in the Dereköy basin sediments exposed west of Antalya (see map A) and Kasimlar basin deposits, north of Antalya (map B). The “Inozoan”-fauna of these boulders are described in this study. 31 species (18 new), belonging to 18 genera (5 new) and 7 families were recognized.

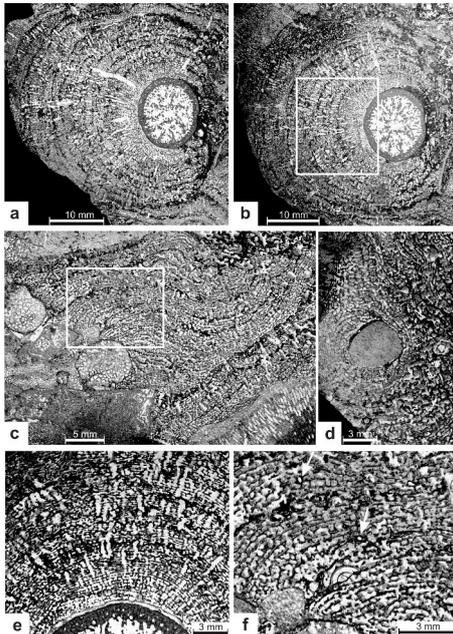
The sponge fauna of the Norian reef boulders of Dereköy basin (Dereköy localities – map A) differs distinctly from reef boulders of the Kasimlar basin (map B). Also the high diversity of sponges and other reef organisms in Dereköy basin and the ecological conditions of the growth style of the organisms differs the faunal association of the both basins.



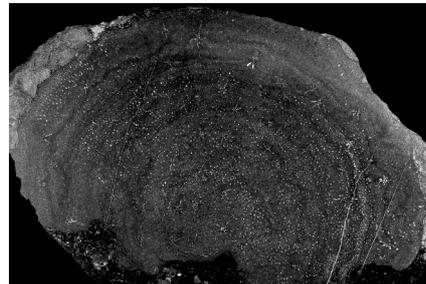
## Norian Wildlife



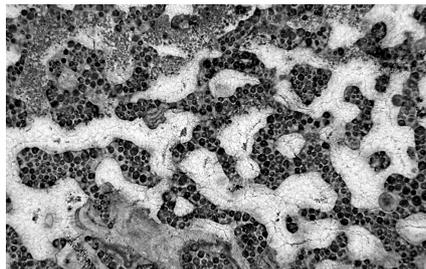
The slightly weathered surface of this reef boulder shows three different facies zones: A sponge dominated area in the right upper part, coral dominated frame-work in the central and left upper part, and a sediment dominated area in the lower part, block diameter about 0,6 m. The block exhibits cavities with internal sediment fillings. Alanköyü locality – Dereköy basin.



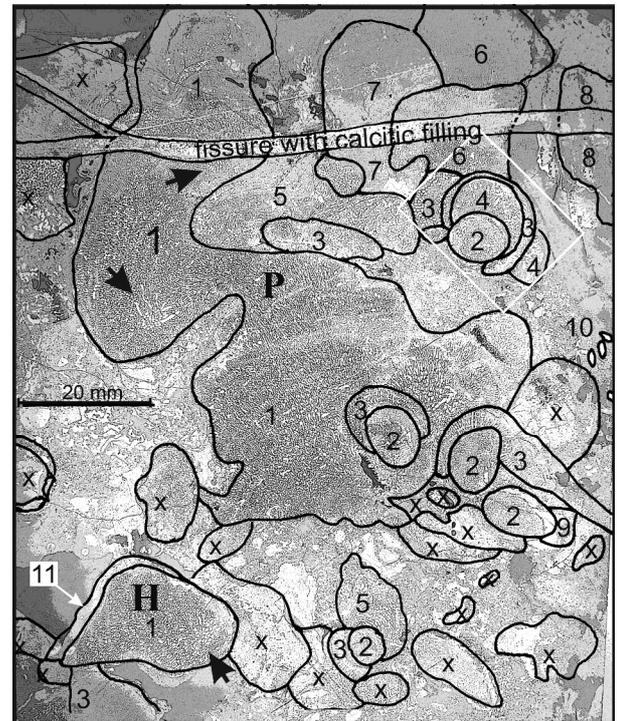
The new genus *Taurispongia* is just limited to the Dereköy basin, but these endemic reef builders occur with eight species. Above some aspects of *Taurispongia lamellata*.



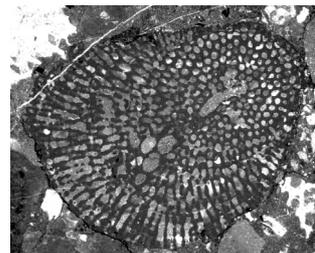
*Caelispongia topukensis*. This new genus is named for the starry sky-like appearance of the sponge in cross section.



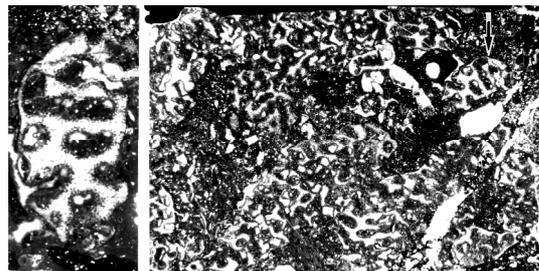
A magnification of *Wildspongia? krystyni* as an example for the very good conservation of the samples from Dereköy basin: The dark appearing parts are the fibre skeleton composed of numerous “ooid”-like skeletal spherulites.



Sketch of a large thin section from the Dereköy locality showing the interaction of several sponges growing together. Most specimens are grown in the available spaces, therefore the individual shaped of the sponges are not developed. 1) H: Holotype, P: Paratype of *Taurispongia facisfera* n. sp., 2) *Acoelia norica* nov. sp., 3) chaetetid sponge, 4) *Taurispongia polycanalis* nov. sp., 5) *Cassianothalamia? cylindrica* Senowbari-Daryan, 6) *Taurispongia* sp., 7) *Taurispongia tenuis* nov. sp., 8) dendroid coral, 9) Brachiopod, 10) Wormtubes, 11) microbial crusts, X) undeterminabel sponge. The arrows show the canal bundles in *Taurispongia facisfera*.



*Obscurospongia chaetetiformis* n. gen. n. sp. is one of the most enigmatic inhabitants of the Anatolian Reefs. The systematic position is controversial. Some criteria support the attribution of this sponge to the chaetetids, others to the inozoans..



The new genus *Tyanada* occurs with two species, both very variabel in shape. Network-like skeleton, containing numerous irregularly cavities, which are connected with others and with the outside by large openings. Irregular sponge, parts can be cylindrical or egg-shaped – some look like Homer Simpson (left).

### References

Senowbari-Daryan B & Link M (2014a) *Bicoelia corticifera*, a new inozooid sponge from the Upper Triassic (Norian) reef boulders of the Central Taurids (South Turkey). Turkish Journal of Earth Sciences 23: 575-579.  
Senowbari-Daryan B & Link M (2014b) Hypercalcified inozoan sponges from the Norian reef carbonates of Turkey (in prep.)

