

The "Ascidian Pool" of El Kura (Gulf of Aqaba)
and the upper salinity limits of the marine biota in the Red Sea

by

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In the high-salinity lagoons around the northern Red Sea, the upper limits of disappearance of the marine biota and their replacement with hyperhaline elements, is unusually high. This was already mentioned by REMANE [1963], SCHAEFFER [1967], and by POR [1972, *in press*].

Along the eastern coast of Sinai, near the settlement of Dahab, a little pool is found on a peninsula which separates the big El Kura lagoon from the open sea (see sketch). The pool, about 2 meters deep and with a surface of about 40/15 meters, is supplied with water by subterranean contact from the open sea. Nevertheless, salinity measured in October 1971 was above 60 ‰, with a marked increase towards the summer. Winter temperature was extremely low for this part of the world, reaching 15° C.

Despite these extreme environmental conditions, the pool is rich in life. The sediment is composed almost exclusively of empty shells of *Cyprideis littoralis* (Ostracoda), indicating the occurrence of heavy blooms of this animal in the high salinity summer period. A rocky ridge of serpulide reef consistency runs across the pool. The serpulids are alive and actively growing, a fact which indicates stability of conditions in the pool for a sizable number of years. Elsewhere, especially along the shores, the sandy-gravelly banks are backed together by extensive growths of a yellow sponge and overgrown by the brown alga *Laurencia papillosa*.

The serpulide rocks are especially rich in life. They are overgrown with *Valonia* and with numerous colonies of a bright-red monoascidian. Several species of molluscs also dwell among the algae, such as *Diodora ruppelli*. The sediment bottom is covered by numerous specimens of the benthic medusa *Cassiopea andromeda*. There are many small crustaceans in the sediment bottom. Two fish live in the pool, the cyprinodont *Aphanius dispar* and a gobiid.

Besides the cyprinodont, there are no typical hyperhaline animals in the "Ascidian Pool". The fauna is a very much impoverished Red Sea fauna, showing the capacity to withstand unusually high salinities for a marine fauna. This again proves the fact that upper salinity limits for the Red Sea fauna are situated considerably higher than in any other marine environment of the world.

