

Title: Influence of Ma'agan Michael's Fishponds Effluents on the Coastal Environment

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Most of the intensive fish farms are considered harmful to the natural environment as they discharge wastewater, sludge and sometimes antibiotics or other chemical remains. Each farm or facility has its own unique features and characteristics that are being affected from its close surroundings, climate and natural resources. As such, each farm directly influence their environment in a different way and the specific attributes of that natural environment will determine how it would absorb, dilute and be effected by those waste products. Ma'agan Michael's fishponds were first excavated in the early 1950s and now cover about 350 acers with a water volume of about 3,780,000 m^3. The pond's water sources are fresh water from the nearby Taninim River and groundwater from the coastal aquifer. In the fishponds are raising mostly Tilapia, Carp, Gray mullet and ornamental fish. The special characters of Ma'agan Michael's Beach are influence by its proximity to local swamps and the nearby fishponds. This beach considered as a rare habitat for many local animals such as nutrias, crabs, waterfowl, invertebrates and migratory birds. The wastewater are currently discharging directly on the beach (only during winter months and subjected to a permit). The general opinion is that these outputs are an environmental hazard and have a destructive impact on the environment. However when examining the Biological and ecological interactions between the fishponds and the environment, analysis of water qualities, and special features of the costal and marine area as a super oligotrophic, appears a very much different picture.

Biography

Nitzan Unger holds a M.A. in Marine Recourses Management and a B.Sc. in Marine Biology. He has many years of hands on experience in the aquaculture industry specializing in marine finfish hatchery, RAS technology, marine management and preservation. These days working at Dagon Aquaculture in Israel as a CTO, Project Manager, Sustainability and Innovation Leader.

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