The opportunities and challenges of the Caspian Sea with emphasis on the ctenophore invasion and fish cage fish culture in the southern Caspian Sea

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Abstract:

The Caspian Sea is home to many species of aquatic species, including plankton and fish. Unfortunately, during the last decade, this sea has been introduced by some non-indigenous species such as *Mnemiopsis leidyi*, caused major changes in the Sea. The highest amount of this ctenophore was observed in summer with temperatures of 25-25° ^{C}, and the highest rate of biomass in autumn and it's lowest at 8-10°^{C}. The length frequency of the ctenophore showed 83% of the population consists of larval and immature organisms, only less than 17% belonged to the adult. The ctenophore feed showed copepodites and adults of *A. tonsa* (66%) and bivalves (13%). On the other hand, the tendency for fish to grow in brackish and marine waters

has grown and among fishes of free Atlantic salmon (51%) and rainbow trout (9%) are considered to be the most important fish for cage culture.
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