

Abstract:

The coastal ecosystem, which represents the boundary in between pelagic province and land, is a complex one. Since most probes of physico-chemical characteristic in coastal ecosystem are unstable, it affects the distribution and abundance of the biota in it. The aim of this project was to determine Hydro-biological studies on the important creeks of East Hormozgan for shrimp culture pond purpose. Three creeks were selected on east coast namely as (Azini, Jask and Khalasi) and three stations in every creek which situated at the mouth, middle and end of the creek. The work in the project is incorporated in living and nonliving characteristics; the sampling period was in four seasons of 1384. Water characteristic like temperature, pH, dissolved oxygen, biochemical oxygen demand (B.O.D), salinity, carbon dioxide(Co₂), nitrate, nitrite, ammonia, phosphate, silicate, total dissolved solid (T.D.S), total suspended particle,(T.S.S) and hydrogen sulphide (H₂S). The recorded mean of these parameters in Azini creek (25.5±1.05 °C), (8.11±0.13), (7.21±0.82 mg/l), (2.3±0.73 mg/l), (38.07± 0.86 ppt), (12.4±1.8 mg/l), (3.12±2.8 µg/l), (0.27±0.19 µg/l), (1.39±0.99 µg/l), (0.27±0.22 µg/l), (9.78±5.36 µg/l), (28.2±2.1 g/l), (37.6±11 mg/l), (0.1±0.07 mg/l), Jask creek (27.5±1.1 °C), (7.96±0.33), (6.79±0.77 mg/l), (2.9±0.96 mg/l), (38.77± 1.68 ppt), (10.8±3.4 mg/l), (3.51±2.2 µg/l), (0.2±0.15 µg/l), (2.13±1.48 µg/l), (0.55±0.42 µg/l), (13±6.3 µg/l), (38.8±1.9 g/l), (37.1±13 mg/l), (0.32±0.28 mg/l), and Khalasi creek (28.2±1.9 °C), (8.04±0.16), (6.9±0.48 mg/l), (2.22±1.03 mg/l), (38.79± 1.46 ppt), (12 ±1.1 mg/l), (3.08±1.4 µg/l), (0.2±0.14 µg/l), (1.41±0.65 µg/l), (0.45±0.39 µg/l), (13.3±4.2 µg/l), (38±3.5 g/l), (35.3±9 mg/l), (0.08±0.04 mg/l), respectively. The range of Total Organic Matter and Total Phosphor of sediment in Azini creek recorded as (4.99-10.57), (0.4-1.73), Jask creek (2.57-5.89), (0.0-1.99) and Khalasi creek (5.23-6.89), (0.59-1.09) respectively. Comparison of concentration mean between three creek shows there was significant difference between Temperature, pH, Dissolved Oxygen, Salinity, free Carbon dioxide, Silicate, Phytoplankton and Zooplankton (P <0.05).

Phytoplankton with (31 genera from 3 families), (34 genera from 4 families) and (38 genera from 3 families) were recorded in Azini, Jask and Khalasi creeks respectively. Zooplankton with 12, 12, and 10 group was present in Azini, Jask and Khalasi creeks. Macrofauna with (54 species from 38 families and 20 Order), (35 species from 25 families and 17 Order) and (51 species from 39 families and 20 Order) were recorded from Azini, Jask and Khalasi creeks respectively.

Minimum and Maximum density of phytoplankton in Azini, Jask and Khalasi creeks were (63-22914), (68-94320) and (280-5523) in liter, Zooplankton (193048-226337), (36750-713753) and (32625-489532) in m³ and Macrofauna (6400-11357), (8375-24800), and (900-12473) in m², Total Count (90-3400), (70-22150), and (0-2250) in one gram sediment and Total Vibrio (43-2400), (15-2400) and (25-460) in one gram sediment respectively.

Key words : Hydrobiology, Creek, Shrimp, Hormozgan