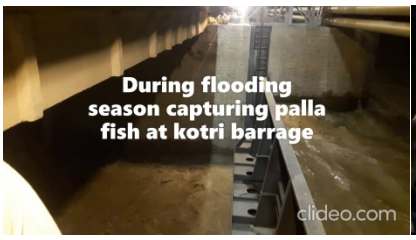
Morphological characterization and culture of migratory Hilsa fish (*Tenualosa ilisha*) from Indus River Sindh Pakistan

ABSTRACT

Hilsa fish, *Tenualosa ilisha* is one of the most important fishes of the Indo-Pacific region. Bay of Bengal, Arabian Sea, Indian Ocean, and Persian Gulf (Sajina et al., 2019). The Hilsa fish (*Tenualosa ilisha*) occurs in the foreshore areas, estuaries, brackish water lakes and freshwater rivers (D. De et al., 2019 and Pillay, T. V. R., Pillay, S. R. & Ghosh, K. K. A et al., 1963). The Kotri Barrage was opened in 1955. It is near Hyderabad and is nearly 3,000 feet (900 meters) long and has 44 gates. The Starting capturing of Hilsa fish (*Tenualosa ilisha*) in the 28 August 2020 to 28 September 2020 one month of period. Mostly fishermen capture fishes for the using "Chiko or wire basket" and starting at midnight 12 am till the morning. Finally, we recognized that Hilsa fish could survive in confined water bodies when the dissolved oxygen level was good in the water. Total nine specimen were collect, minimum size of Hilsa fish (*Tenualosa ilisha*) was 233 mm and maximum size was 390 mm and minimum weight was 253 gram and maximum 700 gram were calculated during experimental trial. These dots were varying in some extent; few of specimens have no dots while others were having 12 dots in their bodies. The dots consist of black color that appeared very first time in Pakistan and has no history in past. Protein contents of Hilsa *Tenuolosa ilisha* were determined samples were estimated to be 20.24%, fat content recorded 10.21 %, and ash content 4.43%. Water quality parameters were monitored daily throughout the experimental period. These parameters of fiber tank were suitable range, temperature 27.2±0.08°C, dissolve oxygen 6.87±0.14 mg/L, water pH 7.6±0.4, and ammonia 0.03±0.02 mg/L.

Keywords: *Tenualosa ilisha,* Hilsa fish, dots, proximate composition, Aquaculture, survival rate, wire basket







Capturing Hilsa fish at kotri barrage Gate at midnight

Capture live Hilsa fish in wire basket

quickly transfer in oxygented polythen bag



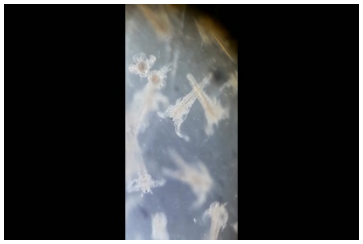



Acclimatization in circular tanks

using car to transport Hilsa fish

transfer in fiber holding tank



Hilsa fish in polythen bag

still live Hilsa fish when tranfer tank

Artemia in compound microscope







Algae culture tank

Hilsa fish in holding tank

Hilsa,T. ilisha (specimen twelve dots)



Biography:
Dr. Punhal Khan is Associate Professor in the Department of Fresh Water Biology & Fisheries, University of Sindh Jamshoro Pakistan, He has published 48 publications in the reputed journal of national anfd international. He is running a project on migratory fish culture.

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