

Echinoderm diversity in Pulicat lagoon of south east India

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ABSTRACT

Pulicat lagoon serve as the mother of lake for a wide and vast Bioresources of all kinds. Pulicat Lagoon, which is located in the North Chennai coastal region, is a typical brackish water ecosystem of great importance with regard to its biodiversity and aesthetic value. It runs parallel to the coast of the Bay of Bengal, being separated from it by an extensive sand-strip the Sriharikota Island, where SHAR of the Indian Space Research Organization (ISRO) is located.

Echinoderms lives exclusively in marine environments are least known from this coastal lagoon. The diversity and occurrence of other fauna available more in number bags many reports. Recently awareness has been created to harvest or collect bio-compounds from the sea animals mainly against cancer as anti-cancerous, anti-bioactive, anti-viral, anti-microbial...etc. The calcareous detritivore animals play a vital role to break down the organic material remains..

Echinoderms diversity was studied from September 2013 to August 2015 from Four stations collectively contributed to 13 species, 4 classes (*Ophiuroidea*, *Asteroidea*, *Echinoidea*, *Holothuroidea*) 9 families (*Ophiacanthidae*, *Astropectinidae*, *Luidiidae*, *Oreasteridae*, *Goniasteridae*, *Temnopleuridae*, *Toxopneustidae*, *Echinometridae*, *Holothuriidae*). Station 1 Kunnankuppam represented by 13 species which is very close to the Bay of Bengal. Station 2 Light house kuppam recorded 12 species and Station 3 Sattankuppam 10 species respectively. Where as only 4 species were observed at Station 4 Jameelabad lies in the fresh water inflows region.

The locations nearer to the bay encountered many echinoderms, and the station in th freshwater inflow regions recorded low number of organisms. Apart from physico chemical variable seasonal changed would also play a role for the distribution of echinoderm will be discussed. Seasonally recorded of echinoderms. During the **Monsoon** season *Stellaster equestris*, *Salmacis virgulata*, *Temnotrema siamense*, *Tripneustes ventricosus*, *Temnopleurus toreumaticus*, *Echinometra oblonga*, **Post-monsoon-** *Stellaster equestris*, **Summer-** *Ophiacantha mesembria*, *Ophiothrix spiculata*, *Astropecten articulatus*, *Luidia australiae*, *Goniodiscaster scaber*, **Pre-monsoon-** *Holothuria spinifera*, *Holothuria spinifera* were noticed. The north east monsoon bring more echinoderms towards the nearshore area.

We conclude that abundance of echinoderms are directly related to the habitat with high salinity. By considering its medicinal value continuous monitoring and advance research should focus on them will be our priority at present.