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### A meta-analysis on knowledge of estuarine fish communities and fisheries from the West coast of India

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#### Abstract

Considering variability in salinity of estuarine waters caused by Indian summer monsoon, Indian estuaries are often called monsoonal estuaries which comprise an area of 1.44 million ha of which west coast estuaries accounts an area of 6.49 lakh ha. Documentation on fishery resources of estuaries of India were begun in late 18<sup>th</sup> century. This paper aims to generate an up to date knowledge on fish communities and ecology of estuaries of the west coast of India (WCI) and to find out the potential scope for further research and development. Data from literature were collected including published journals, articles, periodicals, and research papers. West coast is divided into three regions namely Konkan – the northern part that includes Gujarat & Maharashtra, central part includes Goa and the southern stretch that extends from Karnataka to Kayakumari. Indian west coast is bestowed with more than 60 estuaries and among explored, Vembanad (200 km<sup>2</sup>) with 122 finfish is the largest and Poovar (0.3km<sup>2</sup>) is with 28 finfish the smallest estuary (based on area). Average yield of estuarine fish in India varied between 45 and 75 kg ha<sup>-1</sup>. Fishing gears used includes a variety of types including gillnet, castnet, stakenet, hook and line and traps. The most important fish species exploited were *Mugil cephalus*, *Chanos chanos*, *Etroplus surentensis*, *Lates calcarifer*, *Ambasis ambasis*, *Silago sihama*, *Tenualosa ilisha*, *Gerres filamentosus*, and *Escualosa thoracata*. Some of the estuaries are subjected to anthropogenic stressors such as sewage waste disposal, industrial effluents, illegal fishing, and construction of dams. Studies in various dimensions of fisheries such as taxonomy, biology, ecology, diversity and distribution, climate change impacts, and socio-economic profiling were also discussed. Suggestions and recommendations for the conservation and management of WCI estuaries are also deliberated

#### Keywords

Indian west coast estuaries, Estuarine fishes, Anthropogenic stressors, Recommendations