

OCCURRENCE OF *ARTEMIA* SP. IN THE GULF OF KUTCH

JOSEPH P. ROYAN

National Institute of Oceanography, Dona Paula-403 004, Goa

ABSTRACT

A survey in the Gulf of Kutch revealed the occurrences of brine shrimp, *Artemia* Sp. in many salt producing areas and thus bringing the total number of strains so far reported in India to five.

In recent years there has been a dramatic increase in the use of *Artemia* in aquaculture practices. The cysts are commercially exploited from a few places in North America only and the demand for good quality cysts has presently exceeded the supply and it seems likely that the shortage of *Artemia* cysts might become a major constraint on the growth and development of aquaculture in future.

Many scientists from all over the world are looking for new sources of *Artemia* and this has led to the identification of more than 50 geographical strains throughout the world (Sorgeloos, Baeza - Mesa, Benijts and Persoone, 1976). The *Artemia* Reference Center at the State University of Ghent, Belgium is currently studying the different strains for the various features, viz. the volume of cysts harvested from natural habitats; fatty acid composition of the cysts; survival of young nauplii at different temperatures and salinity combinations; ecological characteristics of the population run on nutritional value of decapsulated cysts and different instar nauplii as a food source for fishes and crustacean larvae.

In India, *Artemia* Sp. was reported from Bombay (Kulkarni, 1953), Rajasthan (Baid, 1958) and Tuticorin (Royan, Navaneethakrishnan and Selvaraj, 1970). Recently a survey was undertaken by the author in the Gulf of Kutch which revealed further occurrences of brine shrimp in many salt producing areas.

As suggested in an earlier communication (Royan, Navaneethakrishnan and Selvaraj, 1970), possibly the aquatic birds could be the carriers of eggs from one environment to the other. One of the possible migratory birds is the flamingo (*Phoenicopterus roseus*) which visits these areas regularly both for feeding and breeding. The presence of flamingoes in these areas has been confirmed by Dr. Salim Ali (personal communication). If one could follow the migration of these birds there should be a possibility of finding *Artemia* in many more places along the coastline of India.

Studies carried out on the hatching efficiency of the cysts, survival of the nauplii in different salinity and temperature combinations, biochemistry, growth and reproduction in the shrimps collected from the Gulf of Kutch reveal the presence of two new strains and thus bringing the total number of strains so far reported from India to five (Fig-1).

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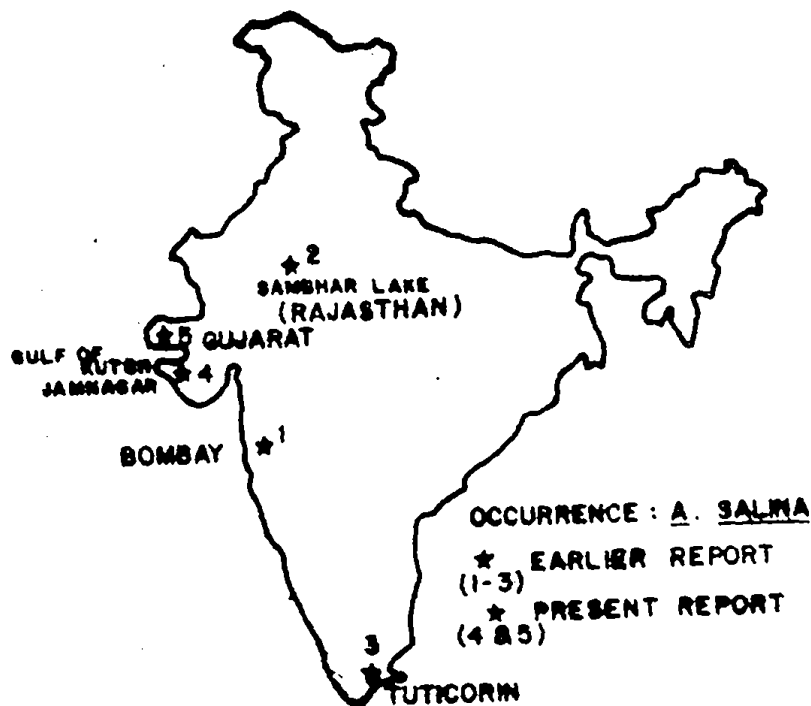


Fig. 1. Locations of *Artemia* strains in India.

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