

### **III. DISTRIBUTION**

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#### **3. 1 DELIMITATION OF THE TOTAL AREA OF DISTRIBUTION**

*Rastrelliger kanagurta* is widely distributed in the tropical Indo-West Pacific region, roughly from longitudes 30°E to 160°W and latitudes from 30°S to 30°N. It is recorded from almost the entire east coast of Africa, from Malagassy, Mauritius, Reunion Islands, Seychelles, the countries bordering the Red Sea and the Persian Gulf, from the coasts of Pakistan, India, Ceylon, Burma, Thailand, Malaysia, Cambodia, Indonesia, northern Australia, New Guinea, the Micronesian, Melanesian, Polynesian and Solomon Islands, the New Hebrides, Fiji and Samoa Islands, the Philippine Islands, along the coasts of the People's Republic of China and Hongkong, Taiwan and Ryukyu Islands and some of the central group of Pacific Islands including those of Hawaii (Fig.2.).

##### **3. 1. 1 Distribution in India**

In the inshore waters up to about 25metres the species is well known to occur all along the east and the west coasts of India viz. from Kathiawar in the north-western coast to Calcutta in the north-eastern coast. It is also recorded from many other places under the Union Territory viz. the Andaman-Nicobar Islands and the Laccadive group of Islands. The trawlers operating from Veraval, Bombay, Karwar, Magalore, Cochin and Calcutta have obtained the species from the deeper regions of the continental shelf. It often enters the estuaries and backwaters. It has been recorded from the Kali River estuary near Karwar, Netravati estuary near Mangalore and from the Cochin backwaters in Kerala.

Dense shoals of the Indian mackerel appear regularly in certain months of the year along the west coast India from Ratnagiri (about 17°N lat) through Malwan, Karwar, Malpe, Tellichery, Calicut, Cochin and Alleppey to Quilon (9°N lat). More than 90% of the total mackerel catch

of the country comes from the west coast and the fishery is almost exclusively confined to a narrow coastal belt of a width of almost 10 nautical miles.

### **3. 2 DIFFERENTIAL DISTRIBUTION**

#### **3. 2. 1 Areas of occurrence of eggs, larvae and juveniles**

**Eggs:** The earliest reference to the occurrence of the eggs of *Rastrelliger kanagurta* in the plankton collected at Calicut is found in the Administrative Reports of the Madras Presidency, Fisheries Department (1937). Devanesan and John (1940) from Chaliyam near Calicut and Balakrishnan (1957) from Vizhinjam recorded mackerel eggs from the west coast of India. Boonprakob (1963 and 1965) and Matsui (1963) reported their occurrence from the Gulf of Thailand.

**Larvae/post-larvae:** Kuthalingam (1956) from Madras on the east coast, Balakrishnan (1957) from Vizhinjam on the west coast of India, Matsui(1963) and Boonprakob (1965) from the Gulf of Thailand and Peter (1967a & b) from the northern Arabian Sea, Red Sea and the Bay of Bengal have recorded the occurrence of the early life-history stages of the mackerel.

**Juveniles:** Several scientific workers viz. Bhimachar and George (1952), Rao and Basheeruddin (1953), Pradhan (1956), Rao and Rao (1957), George and Annigeri (1960), Basheeruddin and Nayar (1961) and Appanna Sastry (1969) have reported the occurrence of young juveniles from various locations on the east and the west coasts of India. Rao (1964b) and Jones and Rosa (1965 and 1967) have consolidated available information and presented accounts of the distribution of juveniles of *R. kanagurta* in the inshore waters.

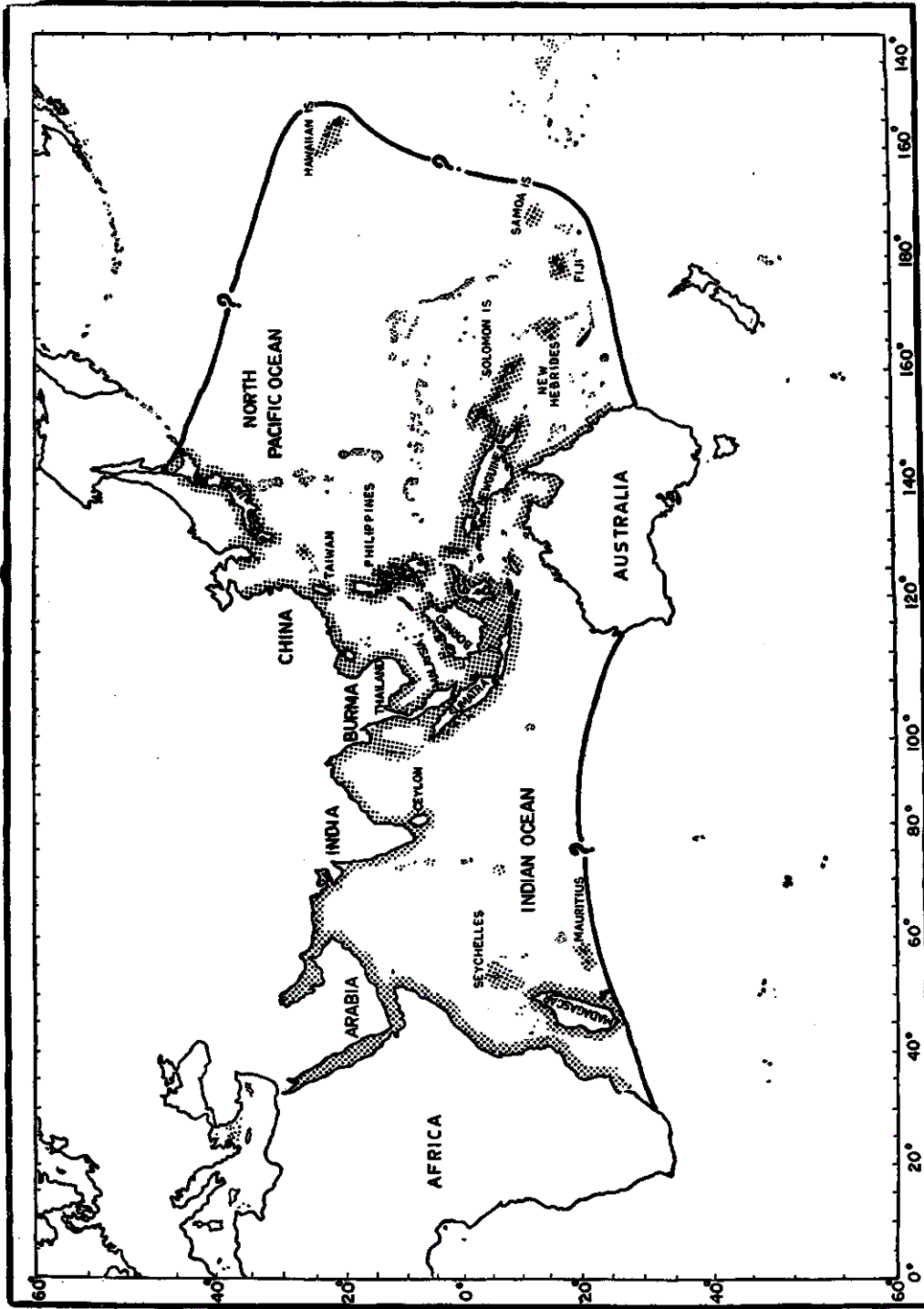


Fig. 2. Geographical distribution of *Restreliger kamogurta*.