

ABSTRACT

Mketsu, Q.K., Roberts, M.J. and V.N. Ndzipha (2005)

The likely distribution range of the coelacanth, *Latimeria chalumnae* Smith, 1939

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The distribution of coelacanth *Latimeria chalumnae* is still unclear. The depth, temperature, salinity and oxygen data of the different marine habitats between Kenton-on-Sea and Lathan Islands in Tanzania were studied and were compared to the fish's distribution and its physiological demands in order to determine if the coelacanth *L. chalumnae*, can be found in those habitats. Different habitats of the coelacanths from East London to the Comoros Islands were compared, in order to establish the cut-off point of the habitat. The northern data in the results show that a suitable habitat continues northwards. To the south near Kenton there is a shallowing of the thermocline which is caused in part by shelf edge upwelling. There, the seabed with structures such as caves drop well below the "preferred temperature range" of the coelacanth i.e. the caves are too deep and temperatures are too cold. This seems then to be the southern limit of their range. It would therefore seem that the animal found by Courtenay-Latimer in East London was right on the edge of the distribution range.