The study dealt with the bacterial flora of a few selected commercially important species of prawns caught from Cochin backwaters. *Pendeus indicus* and *Metapenaeus dobsoni* are the most abundant species. Other prawn species that contribute to the prawn fisheries are *Penaeus monodon*, *Metapenaeus affinis*, *M. monoceros*, *Macrobrachium rosenbergii* and *M. idella*. 
Quantitative and qualitative studies of bacteria, their reaction to different biochemical tests, effect of different incubation temperatures on the bacterial load and the occurrence of bacteria of public health significance were studied. Gram negative bacteria belonging to the genera *Pseudomonas*, *Acinetobacter* and *Vibrio* were the most abundant in the prawns from Cochin backwaters. *Salmonella* was present in prawns and in the water samples and the sediment samples from the Cochin backwaters.

The study revealed that the bacterial counts on the body of the prawns were within acceptable limits. Though the incidence of bacteria of public health significance in prawns, water and the sediment was noticed, the counts were not large enough as to cause any public health hazard.