



Microbial Quality of Assessment of Marine Edible Fishes from Fish Landing Centre, Kasi-medu, Chennai, Tamilnadu

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Abstract:

The microbial quality of two common edible marine fishes numbering 25 red snapper (*Lutjanus campechanus*) and 25 Indian oil sardine (*Sardinella longiceps*) were collected from fish landing centre, Kasimedu, Chennai was assessed during the period from march 2015 to march 2016. Swabs were taken from skin, gill, oral cavity tissues and intestine were incubated in brain heart infusion broth for 24hrs at 37°C. Differentiation and characterization of various isolates were conducted based on their growth characteristics on specific culture media. The results revealed that the samples were contaminated by seven bacterial species, which includes *Escherichia coli*, *Salmonella typhimurium*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Vibrio* spp. The skin samples considered the highest isolation of the total isolates. Members of the genus *Vibrio* spp., such as *Vibrio cholera*, *Vibrio parahaemolyticus* and *Vibrio vulnificus* was the predominant bacterial isolates, and there were considerable numbers of *Staphylococcus* spp found in all examined samples which were observed in skin, gill, oral cavity tissues and intestine, whereas *Escherichia coli*, *Salmonella typhimurium* and *Pseudomonas aeruginosa* which were restricted to intestine, gills and oral cavity tissues. The microbial load of all the samples was beyond the acceptable limit which is recommended by FSSAI. This investigation is mainly focus on the pathogenic microbes of these two edible fishes and to create awareness in disease transmission to man.

Biography:

Muralidharan Velappan is a Research scholar in the Department of Marine Biotechnology, AMET University, Chennai. My overarching research interests is indiscriminate usage of antibiotics in aquaculture and its effects on public health, particularly abusing wide variety of human



non-biodegradable antibiotics remains in aquatic environment.

Recent Publications:

1. Muralidharan Velappan, et al; In Vitro Susceptibility of Commonly Used Antibiotics against *Vibrio parahaemolyticus*, Isolated from Finfishes, Chennai, India; 2020
2. Muralidharan Velappan, et al; Detection of Enteropathogenic *Vibrio parahaemolyticus* and AntibioGram Pattern of Marine Fish of Chennai Coast, Tamilnadu, India; 2020
3. Muralidharan Velappan, et al; In vitro Susceptibility of Selectively used Antibiotics Against *Vibrio* spp. Isolated from Tiger Shrimp (*Penaeus monodon*); 2020
4. Muralidharan Velappan, et al; Pathological investigation of gill, intestine, liver and kidney of naturally infected Streptococcosis in ornamental fish, tiger oscar, *Astronotus ocellatus*; 2020
5. Muralidharan Velappan, et al; Implications for Cholera Outbreaks Warming Oceans, Phytoplankton and River Discharge; 2020

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