

The Bacterial Flora of the Skin and Gill in Silver Sillago (*Sillago sihama*) and its Relationship with Water Pollution in the Coast of Bandar Abbas (North of Persian Gulf)

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Abstract

A bacterial survey of Sillago sihama from winter 1391 until autumn 1392 was conducted to investigate the conditions associated with the pollution of waters in the coasts of Bandar Abbas. Seasonal quantitative and qualitative estimation of bacterial flora present in waters, skin and gills of Silver sillago were performed and identified to genera level where possible. The samples of fish and waters, were collected from 3 stations. Mean total viable bacterial counts in water ranged from $1.2 \pm 2.9 \times 10^3$ to $2.3 \pm 3.1 \times 10^4$ cfu/ml (colony forming units), in skin $4.3 \pm 2.9 \times 10^5$ to $4.1 \pm 3.9 \times 10^6$ cfu/cm² and in gills filaments $1.2 \pm 2.8 \times 10^7$ to $2.3 \pm 3.1 \times 10^7$ cfu/g. Altogether, 6 bacterial genera was identified from skin and gill of Silver sillago that The most probable number of *Escherichia coli* (coliforms) and coagulase-positive staphylococci as well as klebsiella were the most abundant with a prevalence of > 20% in most cases. The method was used to determine of coliforms, E.coli and coagulate positive staphylococci was most probable number (MPN). The water had the reflection on bacterial composition of skin and gills of this kind of fish. It has been suggested repeatedly that the bacterial flora of this fish might reflect the bacteriological conditions of the water and thus be a potential indicator of pollution. The most numbers of the bacterial flora in skin and gill were in summer and the minimum of numbers were in winter..

Keywords: *Sillago sihama*, Bacterial flora, Skin, Gill, Water pollution

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