



## Effect of aquaculture wastewater on microbial indicator of GARGAR River

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### Abstract:

The aim of this study was to investigate the bacterial contamination of GARGAR River and also to determine the role of fish farms effluent on its. For this purpose, 9 stations were designated. Sampling was conducted for one year from February 2015, monthly. ISIRI 4208 (Water quality - Sampling for microbiological examination of water) was used in sampling. Then microbial tests including total coliform count and fecal Coliform count were performed. The results of this study showed that highest total number of Coliform was found in station 2 with  $61181.82 \pm 49054.7$  MPN/100ml and the lowest was station number 1 and statistical analysis of the results showed a significant difference ( $p < 0.05$ ). The highest number of fecal forms belonging to station 2 with  $3380.91 \pm 3185.94$  MPN/100ml but statistical analysis showed no significant difference between station located in SHOTEIT (station 6), GARGRA branch stations and fish farms. It can be concluded that, although water bacterial flora is affected by human and agricultural activities, fish farms effluent is not considered as the only source of bacterial contamination for the river.

**Keywords:** Bacterial contamination, Fish farms, Wastewater, GARGAR River

