**GC-MS ANALYSIS OF THE SELECTED HERBAL PLANT EXTRACTS IN RESISTANCE TO FISH PATHOGEN *AEROMONAS HYDROPHILA***

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**Abstract**

The antibacterial action against bacterial diseases is brought on by the bioactive components found in herbal plants. In the current study, isopropyl alcohol extracts from the leaves of three herbal plants - *Psidium guajava, Azadirachta indica*, and *Ixora coccinea* were chosen based on their maximum zones of inhibition (20 mm, 18 mm, and 17 mm) against the bacterial pathogen *Aeromonas hydrophila* at a concentration of 1.0 µl. Many phytochemical components were present in the isopropyl alcohol extracts of the three herbal plant leaves, according to a qualitative analysis. With the use of a Perkin Elmer Gas Chromatography-Mass Spectrometer, the bioactive components of the isopropyl alcohol extract of the leaves from three different herbal plants were examined. The National Institute of Standards and Technology matched the compounds in these samples (NIST-2008). The findings of the GC-MS analysis revealed that several bioactive chemicals were present in the isopropyl alcohol extract of the leaves of *Psidium guajava, Azadirachta indica,* and *Ixora coccinea*. The findings of this study suggest that the bioactive compounds found through GC-MS analysis present in the chosen isopropyl alcohol extracts of three herbal leaves may have anti-inflammatory and antimicrobial properties.