

Effect of Green Synthesized Silver Nanoparticles on Fresh Water Fish *Mystus Gulio*

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ABSTRACT

The objective of the present study is to analyze the toxic effect of green synthesized silver nanoparticles on the fresh water fish *Catla catla*. The silver nanoparticles were synthesized using aqueous leaf extract of *Madhuca longifolia* and characterized using UV-Vis Spectroscopy and Scanning electron microscopy. Fishes were exposed with sub-lethal concentration (0.4ppm) of silver nanoparticles for 15 days period. Activities of LDH, SDH, Na⁺-K⁺ ATPase, Ca²⁺ ATPase and Mg²⁺ ATPase were estimated in liver, kidney, brain, muscles and gills. A significant decrease in the level of LDH, SDH and ATPase was observed in the treated group of animals. The results revealed that the green synthesized nanoparticles exhibit toxicity in the aquatic organisms.