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**NUTRIENT AND HEAVY METAL REMOVAL CAPACITY
OF *Pistia stratiotes* L. FROM A FRESHWATER WETLAND
AT KELANIYA**

A PROJECT REPORT PRESENTED BY

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Performance of *Pistia stratiotes* collected from Iriyawetiya wetland at Kelaniya, in removing nitrite, nitrate, phosphate and heavy metals, chromium, copper, lead and cadmium was monitored for a period of eight weeks from April to June 2003. Three (plastic) experimental tanks (replicated) and a control tank kept inside a polythene tunnel were used for the purpose within eight weeks. *Pistia stratiotes* was able to remove 61.05% of the chromium, 52% of copper, 57.16% of lead and 63.66% of cadmium present in the water collected from the middle portion of Iriyawetiya wetland. Also removed 19% of nitrite, 60% of nitrate and 87% of phosphate present in wetland water, indicating that *Pistia stratiotes* is a potential candidate species for bioremediation.

The plants retained more heavy metals, in roots i.e. 0.09 g/kg/day of chromium, 0.01 g/kg /day of copper, 0.094 g/kg/day of lead and 0.01g/kg of cadmium than in the shoots, i.e. 0.005 g/kg/day of chromium, 0.003 g/kg/day of copper, 0.008 g/kg/day of lead and 0.001 g/kg/day of cadmium.