



## ***Haemanthus* and *Mitracarpus scaber* as Bioaccumulators of Heavy Metals<sup>#</sup>**

J.T. Ayodele, Salihu A. Kiyawa\*

*Department of Pure and Applied Chemistry, Bayero University, PMB 3011, Kano-Nigeria*

*Accepted December 31, 2010*

---

**Abstract:** Levels of heavy metal concentrations in *Haemanthus* and *Mitracarpus scaber* were assessed using atomic absorption spectrophotometry. The concentrations of nickel, cobalt, chromium, lead, copper, manganese and iron in *Haemanthus* compared with their concentrations in soil indicated their bioaccumulation. Cobalt, iron, nickel, manganese and zinc were also bioaccumulated by *Mitracarpus scaber*. They are hence endemic indicator plant species with potential for use as bioaccumulation, phytoremediation / phytoextraction as interrelationships between these metal concentrations in the soil and their tissues were significant ( $p < 0.05$ ).

**Key words:** *Heavy metals, Haemanthus, Mitracarpus scaber, bioaccumulation, phytoremediation.*

---

---

\*Corresponding: E-Mail: [salihukiyawa@yahoo.com](mailto:salihukiyawa@yahoo.com);

<sup>#</sup>This paper has been presented at 11-ICCA, 20-22.11.2010, Luxor-EGYPT