

Heavy metal concentrations in an important mangrove palm (*Nypa fruticans*), in Rembau-Linggi Mangrove Forest (Peninsular Malaysia).

ABSTRACT

Plants and microorganisms are becoming commonly used worldwide to remediate heavy metal pollution. However, plant species vary in their ability to take up heavy metals or in their tolerance to high concentrations of heavy metals in soils or water. In this study we analyzed heavy metal (cadmium, chromium, copper, lead, and zinc) concentrations in an important mangrove palm in Malaysia: *Nypa fruticans*. The plant samples as well as samples of surrounding sediment were taken from the Rembau-Linggi mangrove forest in the southwestern part of Peninsular Malaysia. The results showed that the uptake of heavy metals by the roots of *Nypa fruticans* was good for all heavy metals except Cu. However, only Zn was easily translocated to the leaves. Therefore, further studies need to be made to determine whether heavy metals such as Cr, Cu and Cd will become more available for uptake by *N. fruticans* during episodes of increased heavy metal runoffs or pollution into the mangrove forests.

Keyword: *Nypa fruticans*; Mangrove; Heavy metals.