

Metabolic Fate of ^{14}C -Labelled Nicotinamide and Adenine in Germinating Propagules of the Mangrove *Bruguiera gymnorrhiza*

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Z. Naturforsch. **67c**, 319–326 (2012); received June 14, 2011/January 13, 2012

We studied the metabolic fate of [*carbonyl*- ^{14}C]nicotinamide and [8- ^{14}C]adenine in segments taken from young and developing leaves, stem, hypocotyls, and roots of a shoot-root type emerging propagule of the mangrove plant *Bruguiera gymnorrhiza*. Thin-layer chromatography was used together with a bioimaging analyser system. During 4 h of incubation, incorporation of radioactivity from [*carbonyl*- ^{14}C]nicotinamide into NAD and trigonelline was found in all parts of the propagules; the highest incorporation rates into NAD and trigonelline were found in newly emerged stem and young leaves, respectively. Radioactivity from [8- ^{14}C]adenine was distributed mainly in the salvage products (adenine nucleotides and RNA), and incorporation was less in catabolites (allantoin, allantoic acid, and CO_2). Adenine salvage activity was higher in young leaves and stem than in hypocotyls and roots. Over a short time, the effect of 500 mM NaCl on nicotinamide and adenine metabolism indicated that NaCl inhibits both salvage and degradation activities in roots.

Key words: *Bruguiera gymnorrhiza*, Mangrove, Nucleotide Metabolism